

MISSOURI
HIGHWAYS and TRANSPORTATION
COMMISSION

JEFFERSON CITY, MISSOURI

SPECIFICATIONS

FOR

CONSTRUCTING OR IMPROVING

IFB 9 – 060920D

DISTRICT 9
Bellevue Fabric Salt Structure
Iron County

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BIDDER CHECKLIST
FINAL CHECKLIST BEFORE SUBMITTING PROPOSAL

- _____1. The orange bound Request for Proposal includes a complete set of bidding forms, specifications, and appendices which are made part of the proposal by reference. It is for the bidders information and convenience only and is not to be returned with the proposal.
- _____2. The blue bound Proposal contains a complete set of bidding forms only. It is to be completed, executed and submitted in a sealed envelope marked "**Bellevue Fabric Salt Structure**"
- _____ a. Complete the Bid Form by filling in the total dollar amount of the bid; listing any addenda which may have been issued; filling in the dollar amount of the bidder's check or Bid Bond, sign the proper signature line, and supply the required information in connection with the signature for the individual bidder, joint adventurer, or corporation.
- _____ b. Submit Bid Bond executed by the bidder and surety. The bidder may use the Bid Bond furnished by the Commission or AIA Document A310 or approved equivalent or attach cashier's check to Bid Bond form. Personal checks are not accepted.
- _____ c. Complete Subcontractor section by listing major subcontractor(s) and general supervisor(s), sign as required.
- _____ d. Complete Certification Regarding Missouri Domestic Products Procurement Act section, if applicable.
- _____3. If addenda are issued attach to the back of the blue bound Proposal. Copy addenda and add to the appropriate section of the orange bound Request for Proposal and retain for your records.

NEWSPAPER ADVERTISEMENT
Notice to Contractors

Bids for constructing the **Bellevue Fabric Salt Structure, Bellevue, Mo** will be received by the Missouri Department of Transportation at its **One Stop Facility located at 1320 Creek Trail Drive, P.O. Box 270, Jefferson City, MO 65102 until 1:00 p.m. September 20, 2006.** Proposal, contract forms, specifications, plans and information may be obtained from the One Stop Facility located at 1320 Creek Trail Drive, P.O. Box 270, Jefferson City, MO 65102, by emailing Sharon.King@modot.mo.gov, calling 573/522-5591 or electronically down-loaded from http://www.modot.org/business/contractor_resources/FacilitiesConstructionandMaintenance.htm Prevailing wage as established by the Missouri Department of Labor and Industrial Relations, for **Iron County**, as shown in the proposal will apply. Bid awards shall be based on bids submitted and evaluated. Bid securities in the amount of 5% of the total bid submitted by the bidder are required to accompany bid.

**SECTION 00020
INVITATION TO BID**

Notice is given hereby that the Missouri Department of Transportation will accept bids for construction of the proposal marked "**Bellevue Fabric Salt Structure**", according to Drawings and Specifications, and described in general as:

Construction of a pre-engineered fabric structure having nominal dimensions of 60' wide x 100' long, including: setting 24" x 24" x various length concrete block foundation wall on existing asphalt pad, and electric.

Sealed bids will be received by the Missouri Department of Transportation at its **One Stop Facility located at 1320 Creek Trail Drive, P.O. Box 270, Jefferson City, MO 65102 until 1:00 p.m. September 20, 2006.**

Bids will be opened and read aloud at that time and that place. Bids received after that time will not be accepted.

Bidders may secure copies of the Proposal, contract forms, specifications, plans and information from the One Stop Facility located at 1320 Creek Trail Drive, P.O. Box 270, Jefferson City, MO 65102, by calling 573/522-5591 or electronically down-loaded from
http://www.modot.org/business/contractor_resources/FacilitiesConstructionandMaintenance.htm

Prevailing wages as established by the Missouri Department of Labor and Industrial Relations, for **Iron County**, as shown in the Proposal, will apply.

Bid securities in the amount of 5% of the bid will be required to accompany bids.

Proposals must be made on forms provided by the Commission. The Commission reserves the right to reject any or all bids and to waive irregularity in the bids and the bidding. **No bid may be amended or withdrawn after the bid is opened.**

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

Building Design Supervisor

SECTION 00100
INSTRUCTIONS TO BIDDER

1. SCOPE OF WORK

Construction of a pre-engineered fabric structure having nominal dimensions of 60' wide x 100' long, including: setting 24" x 24" x various length concrete block foundation wall on existing asphalt pad, and electric.

2. BID FORM

In order to receive consideration, bids must be made in strict accordance with the following.

- A. Make bids, upon the forms provided herein, properly signed and with all items filled out. Do not change the wording of the bid form and do not add words to the bid form. Unauthorized conditions, limitations or provisions attached to the bid will be cause for rejection of the bid.
- B. No telegraphic bid or telegraphic modification of a bid will be considered. No bids received after the time fixed for receiving them will be considered. Late bids will be returned to the bidder unopened.
- C. Address bids to the Missouri Department of Transportation, and deliver to the address given in the Invitation to Bid, on or before the day and hour set for opening the bids. Enclose each bid in a sealed envelope bearing the title of the Work, the name of the bidder, and the date and hour of the bid opening. Submit only the original signed copy of the bid. It is the sole responsibility of the bidder to see that the bid is received on time.

3. BONDS

- A. Bid securities, a cashiers check, a Bank Money Order, or a Certified Check made payable to "Director of Revenue, Credit Road Fund", in the amount stated in the invitation to bid must accompany each bid. The successful bidder's security will be retained until he has signed the Contract and has furnished the required Certificates of Insurance.
- B. The Owner reserves the right to retain the security of all bidders until the successful bidder enters into the Contract. Other bid securities will be returned as soon as practicable. If any bidder refuses to enter into a Contract, the Owner may retain his bid security as liquidated damages but not as a penalty.
- C. Prior to signing the Contract, the successful bidder will secure a Performance Bond in the amount of 100% of the Contract Sum. The bond shall be issued by Surety, acceptable to the Owner. Costs of such bonds will be the responsibility of the bidder.

4. EXAMINATION OF DOCUMENTS AND SITE OF WORK

Before submitting a bid, each bidder shall examine the Drawings carefully, read the Specifications and all other proposed Contract Documents, and visit the site of the work. Each bidder shall fully inform himself, prior to bidding, as to existing conditions and limitations under which the Work is to be performed and shall include in his bid a sum to cover the cost of items necessary to perform the Work, as set forth in the proposed Contract Documents. No allowance will be made to a bidder because of lack of such examination or knowledge. The submission of a bid will be considered conclusive evidence that the bidder has made such examination.

5. INTERPRETATION

No oral interpretations will be made to any bidder as to the meaning of the plans and specifications or the acceptability of alternate products, materials, form or type of construction. Every request for interpretation shall be made in writing and submitted with all supporting documents not less than ten (10) calendar days before opening of bids. The request shall be sent directly to the project Designer. Every interpretation made to a bidder will be in the form of an addendum and will be sent as promptly as is practicable to all persons to whom plans and specifications have been issued. All such addenda shall become part of the contract documents.

6. PROOF OF COMPETENCY OF BIDDER

A bidder may be required to furnish evidence, satisfactory to the Commission, that he and his proposed subcontractor(s) have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner.

7. WITHDRAWAL OF BIDS

- A. A bidder may withdraw his bid, either personally or by written request, at any time prior to the scheduled time for opening bids.
- B. No bid may be amended or withdrawn after the bid is opened.

8. AWARD OR REJECTION OF BIDS

- A. The Contract, if awarded, will be awarded to the responsible bidder who has proposed the lowest Contract Sum, subject to the Commission's right to reject any or all bids and to waive informality and irregularity in the bids and in the bidding.
- B. Award of alternates, if any, will be made in numerical order to result in the maximum amount of work being accepted within available construction funds.
- C. Bidder's proposal price shall include all city, state, and federal sales, excise and similar taxes which may be lawfully assessed in connection with his performance of work and purchase of materials to be incorporated in the work.

9. EXECUTION OF CONTRACT

- A. The Contract, which the successful bidder will be required to execute, will be included in the Contract Documents.
- B. The bidder to whom the Contract is awarded shall, within fourteen calendar days after notice of award and receipt of Contract Documents from the Commission, sign and deliver required copies to the Commission.
- C. Upon delivery of the signed Contract, the bidder to whom the Contract is awarded shall deliver to the Commission those Certificates of Insurance required by the Contract Documents and Performance Bond, as required by the Commission.
- D. Execution of the Contract by the Commission must be done before the successful bidder may proceed with the work.

10. CONSTRUCTION TIME AND LIQUIDATED DAMAGES

- A. Time of Completion - If this proposal is accepted, it is hereby agreed that work will begin not later than the date specified in the "Notice to Proceed" and will diligently be prosecuted in order to complete the work and billing within **40 calendar days** from the date specified. Completion of work will be based on FINAL ACCEPTANCE of the building; "SUBSTANTIAL COMPLETION" will not be accepted as basis for completion.
- B. Liquidated Damages - It is agreed that time is of the essence. Because failure to complete the contract within the time fixed herein will cause serious inconvenience, loss, and damage to the state, liquidated damages will be assessed in the amount of **\$250.00** per working day, for each working day after the agreed completion date that the Work is not fully completed.

11. NONDISCRIMINATION

- A. The Bidder/Offeror understands that this project involves state funds and the Bidder/Offeror awarded the contract will be required to comply with the Executive Order 05-30 of the Governor of the State of Missouri dated September 8, 2005. This order stipulates that there shall be no

discriminatory employment practices by the Contractor or his subcontractors, if any, based on race, sex, religion, national origin, age, color, disability, or veteran status. The undersigned Contractor or his subcontractors, if any, shall give written notice of their commitments under this clause to any labor union with which they have bargaining or other agreements.

- B. The Contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- C. All solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of the Contractor's obligations under this contract and the Regulations, will be relative to nondiscrimination on the grounds of race, color, or national origin.
- D. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, MoDOT shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to: (i) withholding of payments to the Contractor under the contract until the Contractor complies, and/or, (ii) cancellation, termination or suspension of the contract, in whole or in part.

12. BIDDERS CERTIFICATION

- A. Preference in Purchasing Products: - Sections 34.073 and 34.076 RSMo 1994 give preference to Missouri corporations, firms, and individuals, when letting contracts or purchasing products. All bids will be evaluated on the basis of Sections 34.073 and 34.076 RSMo 1994. Any successful bidder which is a corporation organized in a state other than Missouri shall furnish to the owner, attached to the Proposal, a properly certified copy of its current Certificate of Authority to do business in the State of Missouri, such certificate to remain on file with the Commission. No Contract will be awarded by the Commission unless such certificate is furnished by the bidder.
- B. Any successful bidder which is a corporation organized in the State of Missouri shall furnish, at its own cost, if requested, a Certificate of Good Standing issued by the Secretary of State, such certificate to remain on file with the owner.
- C. If the successful bidder is doing business in the State of Missouri under a fictitious name, he shall furnish to the Commission, attached to the Proposal, a properly certified copy of the certificate of Registration of Fictitious Name from the State of Missouri, such certificate shall remain on file with the Commission. No contract will be awarded by the Commission until such certificate is furnished by the bidder.
- D. Certification Regarding Missouri Domestic Products Procurement Act: - The bidder's attention is directed to the Missouri Domestic Products Procurement Act, Sections 34.350 to 34.359, RSMo. which requires all manufactured goods or commodities used or supplied in the performance of this contract or any subcontract to be manufactured or produced in the United States. Section 34.350, RSMo, does not apply if the total contract is less than One Thousand Dollars (\$1,000.00). Section 34.355, RSMo, requires the vendor or contractor to certify his compliance with Section 34.353 and, if applicable, Section 34.359, RSMo, at the time of bidding and prior to payment. Failure to comply with Section 34.353, RSMo, during performance of the contract and to provide certification of compliance prior to payment will result in nonpayment for those goods or commodities.

Failure to complete this document will cause the State to presume the manufactured goods or products listed in the bid are not manufactured or produced in the United States, and the bid will be evaluated on that basis.

- [] If all the goods or products specified in the attached bid which the bidder proposes to supply to the State shall be manufactured or produced in the "United States" as defined in Section 34.350, RSMo, check the box at left.

- [] If only one line of any particular goods or products specified in the attached bid is manufactured or produced in the "United States" as defined in Section 34.350, RSMo, check the box at left and list the item(s) here:

- [] If any or all of the goods or products specified in the attached bid which you proposed to supply to the State are not manufactured or produced in the "United States" as defined in Section 34.350, RSMo, then: (a) check the box at left; (b) list below by item number the country other than the United States where each goods or product you propose to furnish is manufactured or produced; and (c) check the box(es) at left of the paragraphs below if applicable, and list the corresponding item numbers in the spaces provided.

Item	Location Where Manufactured or Produced
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

(use additional sheet if necessary)

- [] The following specified goods or products cannot be manufactured or produced in the United States in sufficient quantities or in time to meet the contract specifications.

Item	Location Where Manufactured or Produced
<hr/>	<hr/>
<hr/>	<hr/>

- [] The following specified goods or products must be treated as manufactured or produced in the United States, in accordance with an existing treaty, law, agreement or regulation of the United States, including a treaty between the United States and any foreign country regarding export-import restrictions or international trade.

Item	Location Where Produced or Manufactured
<hr/>	<hr/>
<hr/>	<hr/>

CERTIFICATION

By submitting this document, completed as directed above, with a bid, the bidder certifies under penalty of making a false declaration (Section 575.060, RSMo) that the information contained in this document is true, correct and complete and may be relied upon by the State in determining the bidders qualifications under and compliance with the Missouri Products Procurement Act.

The bidder's failure to complete this document as directed above will cause the State to presume the manufactured goods or products listed in the bid are not manufactured in the United States and the bid will be evaluated on that basis pursuant to section 34.353.3(2), RSMo

**SECTION 00301
BID FORM**

To: The Missouri Highway and Transportation Commission
 105 West Capitol Avenue
 Jefferson City, Missouri 65101

1. The undersigned, having examined the proposed Contract Documents titled: **“Bellevue Fabric Salt Structure”** and having visited the site and examined the conditions affecting the Work, hereby proposes and agrees to furnish all labor, materials, equipment and everything which may be necessary or incidental thereto, as proposed by said Contract Documents, all to the satisfaction of the Chief Engineer of the Missouri Department of Transportation and the Missouri Highway and Transportation Commission, for the stipulated sum of:

_____ DOLLARS (\$_____).

2. The undersigned, acknowledges having examined and being familiar with the contract documents including the drawings, the Instructions to Bidders, General Conditions, Supplementary Conditions and the body of technical specifications.
3. The undersigned acknowledges receipt of Addenda number _____ through _____ inclusive.
4. Enclosed with this bid is bid security in the amount of not less than 5% of the bidder's proposed Contract Sum, the amount being _____ DOLLARS (\$_____).

IF AN INDIVIDUAL

Name of individual

Residence address

Social Security Number

Telephone Number

Firm Name, If Any

Address for communications

Signature

IF A PARTNERSHIP

_____ Name of Partnership	(State Name and Residence Address of All Partners) _____
_____ Partner	_____ Residence Address
_____ Partner	_____ Residence Address
_____ Address for Communications	_____ Federal Tax I.D. Number
_____ Telephone Number	_____ Signature of Either Partner

IF A CORPORATION

_____ Name of Corporation	Incorporated under the laws of the State of _____
_____ Name and Title of Officer	Corporate License No. _____ (If a corporation organized in a state other than Missouri, attach Certificate of Authority to do business in the State of Missouri.)
_____ Signature of officer	_____ Federal Tax I.D. Number
_____ Address for Communications	(ATTEST)
_____ Telephone Number	_____ (SEAL) Secretary

(Each bidder must complete the Bid Form by signing in the proper signature line above and by supplying the required information called for in connection with the signature. The information called for is necessary in the proper preparation of the contract and performance bond.)

SECTION 00430

SUBCONTRACTOR LISTING

1. For portions of the Work equaling or exceeding 1% of the total proposed Contract Sum, the undersigned proposes to use the following subcontractors. Except as otherwise approved by the Owner, the undersigned proposes to perform all other portions of the Work with his own forces.

2. Portion of the Work: Subcontractor name and address:

[illegible]

USE ADDITIONAL SHEETS
IF REQUIRED

PROVIDE SIGNATURE
IDENTICAL TO THAT
SHOWN ON THE BID FORM

BIDDER:

by _____

**SECTION 00600
BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we _____,
as Principal, and _____,
as Surety, are held firmly bound unto the State of Missouri (acting by and through the Missouri Highway and Transportation Commission) in the penal sum of _____ Dollars (\$_____),
to be paid to the State of Missouri, or the Missouri Highway and Transportation Commission, to be credited to the State Road Fund and Principal and Surety binding themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this _____ day of _____, 20_____

THE CONDITION OF THIS OBLIGATION is such that:

WHEREAS, the Principal is submitting herewith a bid to the Missouri Highway and Transportation Commission on Route(s) _____,
in _____ County(ies), Project(s) _____,
for construction or improvement as set out in said proposal.

NOW THEREFORE, if the Missouri Highway and Transportation Commission shall accept the bid of the Principal, and if said Principal shall properly execute and deliver to the Missouri Highway and Transportation Commission the Contract, Contract Bond, Specifications and evidence of insurance coverage in compliance with the requirements of the Proposal, to the satisfaction of the Missouri Highway and Transportation Commission, then this obligation shall be void and of no effect, otherwise to remain in full force and effect.

In the event the said Principal shall, in the judgment of the Missouri Highway and Transportation Commission, fail to comply with any requirement as set forth in the preceding paragraph, then the State of Missouri, acting through the Missouri Highway and Transportation Commission, shall immediately and forthwith be entitled to recover the fees, and any other expense of recovery.

Principal

Surety

By _____

Attorney in Fact (SEAL)

Attest: (CORPORATE SEAL)

Corporate Secretary

Note: This bond must be executed by the Principal and by a Corporate Surety authorized to conduct surety business in the State of Missouri.

SECTION 01010
GENERAL CONDITIONS

1. General. The contractor shall do all things necessary to the performance of the contract in a substantial and acceptable manner in accordance with the specifications and plans.
2. Employer's Liability. Contractor shall furnish evidence to the Commission that with respect to the operations it performs, it either carries employers liability or worker's compensation insurance or is qualified as self-insured under the provisions of law of the state relating to worker's compensation.
3. The Contractor shall purchase and maintain such insurance as will protect him from claims under workmen's compensation acts and other employee benefit acts, from claims for damages because of bodily injury, including death, and from claims for damages to property which may arise out of or result from the Contractor's operations under this Contract, whether such operations be by himself or by any Subcontractor or anyone directly or indirectly employed by any of them.
4. This insurance shall be written for not less than any limits of liability specified as part of this contract, or required by law, whichever is the greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under this contract. Unless otherwise specified, insurance limits shall be as follows:
 - A. Workmen's Compensation: Workers Compensation Insurance, including "Occupational Disease Act" requirements, must be maintained if required by law.
 - B. Public Liability (includes property damage and personal injury):
 - i Not less than \$400,000 for any one person in a single accident or occurrence.
 - ii. Not less than \$2,500,000 for all claims arising out of a single occurrence.
5. Duration of Insurance. The evidence of insurance required by sections 2, 3, and 4 above shall be furnished to the Commission prior to the effective date of the Notice to Proceed. All insurance herein before specified shall be carried until all work required to be performed under the terms of the contract is satisfactorily completed as evidenced by the formal acceptance by the Commission and in the event that the limits of coverage for property damage are depleted or decreased by the payment of claims, the contractor shall procure a reinstatement of the limits. The cost of all insurance required to be carried by the contractor shall be considered as completely covered by the contract price.
6. Inspection of Work. Commission's engineer shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials and other data and records relating to the work. If requested by Commission's engineer, the contractor shall at any time before final acceptance of the work uncovers any portion of the finished work as directed for inspection. After examination, the contractor shall restore said portions of the work to the standards required by the contract. Should the work thus exposed and examined prove acceptable, the actual cost of uncovering, removing and replacing shall be paid by the Commission. Should the work so exposed and examined prove unacceptable, the uncovering, removing and replacing shall be at the expense of the contractor.
7. Change Orders. All departures from the plans and specifications will be considered unauthorized unless, before proceeding with the work, the contractor has had delivered to it a change order, signed by the Commission's engineer, authorizing and directing such changes or departures. All unauthorized work shall be at the contractor's expense and the engineer may order such unauthorized work removed and replaced at the contractor's expense.
8. Defective Work. All work which has been rejected shall be remedied, or if necessary, removed and replaced in an acceptable manner by the contractor at its expense. If the contractor fails to remedy or replace such defective work immediately after receiving written notice from the Commission's engineer, Commission may employ labor to correct the defective work, and the cost incurred in making such corrections shall be deducted from the payment due or to become due the contractor under this contract.

9. Contractor's Responsibility for Work. Until the work is accepted by Commission's engineer, it shall be in the custody and under the charge and care of the contractor. Contractor shall rebuild, repair, restore or make good at its own expense any lost or stolen Commission-owned material and all injuries or damages to any portion of the work caused by action of the elements or from any other reason before its completion and final acceptance. Issuance of a payment estimate on any part of the work done will not be considered as final acceptance of any work completed up to that time.
10. Preservation of Utilities and Monuments. The contractor shall be responsible for the preservation of all public and private utilities, wires, lines, pipes, poles, cables, and conduit at the site of the work and shall use every precaution necessary to prevent damage or injury thereto. The contractor shall not disturb or damage any land monument or property landmark until an authorized agent has witnessed or otherwise referenced, their location and shall not remove them until directed by Commission's engineer.
11. Cooperation with Other Contractors. The contractor shall arrange its work so as not to interfere with the operations of other contractors of the Commission which might be engaged in performing adjacent or nearby work. Whenever work being done by other contractors is contiguous or related to the work involved in this contract, the respective rights of the various contractors will be determined by the Commission's engineer in order to secure the completion of the work under all contracts in general harmony.
12. Temporary Suspension of Work. Commission's engineer shall have authority to suspend work, wholly or in part, for such period or periods of time as he may deem necessary when weather or other conditions are such that in the opinion of the engineer the work may be done at a later time with advantage to the Commission or for failure on the part of the contractor to comply with any of the provisions of the contract. The contractor may suspend work for reasonable cause with written approval of the engineer. Liquidated damages shall not accrue during the period in which work is suspended with the approval of the engineer, however, if the suspension is because of the contractor's failure to comply to any of the provisions of the contract, the contractor shall not be entitled to an extension of completion time nor to a waiver of liquidated damages. In the event work is suspended, the contractor shall store all materials in a manner that will protect them from damage, and shall take every precaution to prevent damage or deterioration of, the portions of the work completed. If work has been discontinued for any reason, the contractor shall give Commission's engineer written notice at least forty-eight (48) hours before resuming operations.
13. Contractor's Procedure for Claims. If the contractor considers additional compensation may be due for work or material not clearly covered in the contract or ordered in writing by the engineer as extra work, or if additional compensation may be requested beyond the scope of such provisions, the contractor shall notify the engineer in writing of the intention to make a claim before beginning the work in question. If notification is not given and the engineer is not afforded proper facilities by contractor to provide necessary inspection and for keeping strict account of actual cost, the contractor agrees to waive any claims for additional compensation. Notice by the contractor, and the fact that the engineer has kept account of the cost shall not be construed as substantiating the validity of the claim. The contractor shall file a written notice of claim for additional compensation in triplicate within 60 days after completing the work in question.

If the claim is against the Commission, the notice of claim shall be personally delivered, or sent by certified mail to the office of the Secretary of the Commission in Jefferson City, Missouri. All notices of claims shall contain an itemized statement showing completely and fully the items and amounts forming the basis of the claim.

Any claim or an item of any claim, not included in the notice and statement, or any claim included but not clearly defined and specifically set out and itemized or any claim not filed within the time and in the manner provided, shall be forever waived and shall neither constitute the basis of nor be included in any legal action, counterclaim, set-off, or arbitration.

All claims filed with Missouri Highway and Transportation Commission's Secretary will be forwarded to the Missouri Department of Transportation's Claims Committee.

14. Overhead and Profit on Change Orders. The percentages for overhead and profit charged on Change Orders and Field Work Authorizations shall be negotiated and may vary according to the nature, extent and complexity of the work involved. However, the overhead and profit for the contractor or subcontractor actually performing the work shall not exceed 15%. When one or more tiers of subcontractors are used, in no event shall any contractor or subcontractor receive as overhead and profit more than 7% of the cost of the work performed by any of his subcontractors. In no case shall the total overhead and profit paid by the owner on any change order exceed twenty five percent (25%) of the cost of materials, labor and equipment necessary to put the change order work in place.
15. Review of Submittals. The architect's review of submittals is only for the limited purpose of checking for conformance with information given and seeing if they conform to design intent. The architect is not responsible for determining the accuracy of measurements and completeness of details, for verifying quantities, or for checking fabrication or installation procedures. The architect's review does not relieve the contractor of his or her responsibilities under the contract documents.
16. A working day. Is defined as any day when, soil and weather conditions would permit the major operation of the project for six hours or more unless other unavoidable conditions prevent the contractor's operation. If conditions require the contractor to stop work in less than six hours, the day will not be counted as a working day. **Working days will begin as soon as notice to proceed is issued.** In order for MoDOT not to change a work day due to unavoidable conditions, the contractor must have enough forces, equipment, and materials on site to begin the project. The contractor must notify MoDOT inspector before 12:00 noon of said working day if forces will not be present.

END OF SECTION

SECTION 01011
SUPPLEMENTARY CONDITIONS

- A. The following supplements modify, change, delete from or add to the "General Conditions."
1. The proposed work includes the furnishing of all materials, equipment and labor for the work as set forth in the plans, proposal and specifications.
 2. The contractor will be required to remove from the Highway and Transportation Commission's property all debris.
 3. **The contractor will pay all sales and use taxes that constitute a legal obligation arising out of this work.**
 4. The contract price shall include any necessary permits and licenses required by law incidental to the work. Local ordinances requiring building permits are not applicable to the state. Contractor will comply with local laws involving safety in the prosecution of the work.
 5. Contractor will provide a one year warranty for parts and labor on all building material, and equipment or a standard manufacturer's warranty which ever is greater. All warranties, including extended service agreements shall begin on the date of Final Acceptance of this project.
 6. The plans holders list may be obtained from the One Stop Facility located at 1320 Creek Trail Dr., Jefferson City, Mo 65102 , by calling 573/522-5591 or electronically down-loaded from http://www.modot.org/business/contractor_resources/FacilitiesConstructionandMaintenance.htm
- B. DEFINITIONS
1. Architect: When the term "Architect" is used herein, it shall refer to Doug Record, (Building Designer) or Jerrold Scarlett (Architect) Missouri Department of Transportation, General Services Division, (573) 526-7937, FAX (573) 526-6948.
 2. Construction Inspector: When the term "Construction Inspector" is used herein, it shall refer to Kelly Hammack, Missouri Department of Transportation, General Services Division, (573) 526-7936, FAX (573) 526-6948.

END OF SECTION

SECTION 01019
CONTRACT CONSIDERATIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Application for payment.
- C. Change procedures.
- D. Alternatives.

1.2 RELATED SECTIONS

- A. Section 01600 - Material and Equipment: Product substitutions.

1.3 SCHEDULE OF VALUES

- A. Submit a printed schedule on Contractor's standard form. Electronic media printout will be considered.
- B. Submit Schedule of Values in duplicate within 20 days after date of Owner-Contractor Agreement.
- C. Revise schedule to list approved Change Orders, with each Application For Payment.

1.4 APPLICATIONS FOR PAYMENT

- A. Submit four copies of each application on Contractor's electronic media driven form.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: 30 days.
- D. Submit waiver of liens from vendors.
- E. Include an updated construction progress schedule.
- F. Certified payroll records.

1.5 CHANGE PROCEDURES

- A. The Architect/Engineer may issue a Notice of Change that includes a detailed description of a proposed change with supplementary or revised Drawings and specifications, a change in Contract Time for executing the change with a stipulation of any overtime work required.
- B. The Contractor may propose changes by submitting a request for change to the Architect/Engineer, describing the proposed change and its full effect on the Work. Include a statement describing the reason for the change, the effect on the Contract Sum/Price and Contract Time, and a statement describing the effect on Work by the MoDOT District or other Contractors.
- C. Stipulated Sum/Price Change Order: Based on Notice of Change and Contractor's fixed price quotation or Contractor's request for a Change Order as approved by Architect/Engineer.
- D. Construction Change Directive: Architect/Engineer may issue a directive instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Sum/Price or Contract Time. Promptly execute the change.
- E. Time and Material Change Order: Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Architect/Engineer will determine the change allowable in Contract Sum/Price and Contract Time as provided in the Contract Documents.
- F. Maintain detailed records of work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- G. Execution of Change Orders: Architect/Engineer will issue Change Orders for signatures of parties as provided in the Conditions of the Contract.

1.6 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the Architect/Engineer, it is not practical to remove and replace the Work, the Architect/Engineer will direct an appropriate remedy or adjust payment.

1.7 ALTERNATIVES

- A. Accepted Alternatives will be identified in Owner-Contractor Agreement.

END OF SECTION

SECTION 01039
COORDINATION AND MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Coordination and project conditions.
- B. Field engineering.
- C. Preconstruction meeting.
- D. Site mobilization meeting.
- E. Progress meetings.
- F. Preinstallation meetings.
- G. Equipment electrical characteristics and components.
- H. Examination.
- I. Preparation.
- J. Cutting and Patching.
- K. Alteration project procedures.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to and placing in service, such equipment.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work, which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
- D. In finished areas, except as otherwise indicated, conceal pipes, ducts and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.3 FIELD ENGINEERING

- A. Employ a Land Surveyor registered in the State of Missouri and acceptable to Architect/Engineer.
- B. Owner will locate and protect survey control and reference points.
- C. Control datum for survey is that established by Owner provided survey.
- D. Verify set-backs and easements; confirm drawing dimensions and elevations.
- E. Provide field engineering services. Establish elevations, lines and levels, utilizing recognized engineering survey practices.

1.4 PRECONSTRUCTION MEETING

- A. Architect/Engineer will schedule a meeting after Notice of Award.
- B. Attendance Required: District engineer or representative, Architect/Engineer and Contractor.
- C. Record minutes and distribute copies within 5 days after meeting to participants, with two copies to District Engineer, Architect/Engineer, participants and those affected by decisions made.

1.5 SITE MOBILIZATION MEETING

- A. Architect/Engineer will schedule a meeting at the Project site prior to Contractor occupancy.
- B. Record minutes and distributes copies within 5 days after meeting to participants, with two copies to Architect/Engineer, participants and those affected by decisions made.

1.6 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at when arranged by architect/engineer.
- B. Architect/Engineer will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, District engineer representative, Architect/Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:
 - 1. Review of Work progress.
 - 2. Field observations, problems, and decisions.
 - 3. Identification of problems, which impede planned progress.
 - 4. Maintenance of progress schedule.
 - 5. Corrective measures to regain projected schedules.
 - 6. Coordination of projected progress.
 - 7. Effect of proposed changes on progress schedule and coordination.
- E. Record minutes and distributes copies within 5 days after meeting to participants and those affected by decisions made.

1.7 PREINSTALLATION MEETING

- A. When required in individual specification sections, convene a pre-installation meeting at the site prior to commencing work of the section.
- B. Notify Architect/Engineer seven days in advance of meeting date.
- C. Prepare agenda and preside at meeting:
 - 1. Review conditions of installation, preparation and installation procedures.
 - 2. Review coordination with related work.
- D. Record minutes and distributes copies within 5 days after meeting to participants and those affected by decisions made.

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

3.1 CUTTING AND PATCHING

- A. Employ skilled and experienced installer to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements, which affect:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.
 - 3. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching to complete Work, and to:
 - 1. Uncover Work to install or correct ill-timed Work.
 - 2. Remove and replace defective and non-conforming Work.
 - 3. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Cut masonry and concrete materials using masonry saw or core drill.
- E. Fit Work tight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- F. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.

- G. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.
- H. Identify hazardous substances or conditions exposed during the Work to the Architect/Engineer for decision or remedy.

3.2 ALTERATION PROJECT PROCEDURES

- A. Materials: As specified in Product sections; match existing Products and work for patching and extending work.
- B. Close openings in exterior surfaces to protect existing work from weather and extremes of temperature and humidity.
- C. When finished surfaces are cut so that a smooth transition with new Work is not possible, terminate existing surface along a straight line at a natural line of division and submit recommendation to Architect/Engineer for review.
- D. Patch or replace portions of existing surfaces that are damaged, lifted, discolored or showing other imperfections.
- E. Finish surfaces as specified in individual Product sections.

END OF SECTION

SECTION 01300 SUBMITTALS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Proposed Products list.
- D. Product Data.
- E. Shop Drawings.
- F. Samples.
- G. Design data.
- H. Test reports.
- I. Certificates.
- J. Manufacturer's instructions.
- K. Manufacturer's field reports.
- L. Erection drawings.
- M. Construction photographs.

1.2 RELATED SECTIONS

- A. Section 01300 - Submittals
- B. Section 01400 - Quality Control: Manufacturers' field services and reports.
- C. Section 01700 - Contract Closeout: Contract warranties, bonds, manufacturers' certificates and closeout submittals.

1.3 REFERENCES

- A. AGC Associated General Contractors of America publication "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".

1.4 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Architect/Engineer accepted form.
- B. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number and specification section number, as appropriate.
- C. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work and coordination of information is in accordance with the requirements of the Work and Contract Documents.
- D. Schedule submittals to expedite the Project, and deliver to Architect/Engineer at business address. Coordinate submission of related items.
- E. For each submittal for review, allow 15 days excluding delivery time to and from the contractor.
- F. Identify variations from Contract Documents and Product or system limitations, which may be detrimental to successful performance of the completed Work.
- G. Submittals not requested will not be recognized or processed.

1.5 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial schedule in duplicate within 15 days after date established in Notice to Proceed.
- B. Revise and resubmit as required.
- C. Submit revised schedules with each Application for Payment, identifying changes for each version.
- D. Submit a horizontal bar chart with separate line for each major portion of Work or operation, identifying first workday of each week.

1.6 PROPOSED PRODUCTS LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation and reference standards.

1.7 PRODUCT DATA

- A. Product Data For Review:
 - 1. Submitted to Architect/Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
 - 2. After review, provide copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
- B. Product Data For Information:
 - 1. Submitted for the Architect/Engineer's knowledge as contract administrator or for the Owner.
- C. Product Data For Project Close-out:
 - 1. Submitted for the Owner's benefit during and after project completion.
- D. Submit the number of copies, which the Contractor requires, plus two copies that will be retained by the Architect/Engineer.
- E. Mark each copy to identify applicable products, models, options and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- F. After review distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 - CONTRACT CLOSEOUT.

1.8 SHOP DRAWINGS

- A. Shop Drawings For Review:
 - 1. Submitted to Architect/Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
 - 2. After review, produce copies and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.
- B. Shop Drawings For Information:
 - 1. Submitted for the Architect/Engineer's knowledge as contract administrator or for the Owner.
- C. Shop Drawings For Project Close-out:
 - 1. Submitted for the Owner's benefit during and after project completion.
- D. Indicate special utility and electrical characteristics, utility connection requirements and location of utility outlets for service for functional equipment and appliances.
- E. Submit in the form of one reproducible transparency and one opaque reproduction.

1.9 SAMPLES

- A. Samples For Review:
 - 1. Submitted to Architect/Engineer for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents.
 - 2. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.

- B. Samples For Information:
 - 1. Submitted for the Architect/Engineer's knowledge as contract administrator or for the Owner.
- C. Samples For Selection:
 - 1. Submitted to Architect/Engineer for aesthetic, color, or finish selection.
 - 2. Submit samples of finishes for Architect/Engineer selection.
 - 3. After review, produce duplicates and distribute in accordance with SUBMITTAL PROCEDURES article above and for record documents purposes described in Section 01700 - CONTRACT CLOSEOUT.

1.10 DESIGN DATA

- A. Submit for the Architect/Engineer's knowledge as contract administrator or for the Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.11 TEST REPORTS

- A. Submit for the Architect/Engineer's knowledge as contract administrator or for the Owner.
- B. Submit test reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.12 CERTIFICATES

- A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or the Contractor to Architect/Engineer, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product but must be acceptable to Architect/Engineer.

1.13 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting and finishing, to Architect/Engineer for delivery to owner in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention and special environmental criteria required for application or installation.
- C. Refer to Section 01400 - Quality Control, Manufacturers' Field Services article.

1.14 MANUFACTURER'S FIELD REPORTS

- A. Submit reports for the Architect/Engineer's benefit as contract administrator or for the Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.

1.15 ERECTION DRAWINGS

- A. Submit drawings for the Architect/Engineer's benefit as contract administrator or for the Owner.
- B. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the contract documents.
- C. Data indicating inappropriate or unacceptable Work may be subject to action by the Architect/Engineer or Owner.

END OF SECTION

SECTION 01400
QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance - control of installation.
- B. Tolerances
- C. References and standards.
- D. Mock-up.
- E. Inspecting and testing laboratory services.
- F. Manufacturers' field services.

1.2 RELATED SECTIONS

- A. Section 01300 - Submittals: Submission of manufacturers' instructions and certificates.
- B. Section 01600 - Material and Equipment: Requirements for material and product quality.
- C. Section 01650 - Starting of Systems.

1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.4 TOLERANCES

- A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.5 REFERENCES AND STANDARDS

- A. For Products or workmanship specified by association, trade or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard by date of issue current on date for receiving bids or date specified in the individual specification sections, except where a specific date is established by code.
- C. Neither the contractual relationships, duties or responsibilities of the parties in Contract nor those of the Architect/Engineer shall be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.6 TESTING SERVICES

- A. Contractor to provide all testing services as called out in these specifications.
- B. Testing and source quality control may occur on or off the project site. Perform off-site testing as required by the Architect/Engineer or the Owner.
- C. Testing does not relieve Contractor to perform Work to contract requirements.
- D. Re-testing required because of non-conformance to specified requirements shall be performed by the same personnel on instructions by the Architect/Engineer.

1.7 INSPECTION SERVICES

- A. Owner will employ MoDOT Personnel to perform inspection.
- B. Inspecting may occur on or off the project site. Perform off-site inspecting as required by the Architect/Engineer or the Owner.
- C. Inspecting does not relieve Contractor to perform Work to contract requirements.

1.8 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and the balancing of equipment as applicable and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Refer to Section 01300 - SUBMITTALS, MANUFACTURERS' FIELD REPORTS article.

PART 2 EXECUTION

2.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.

2.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION

SECTION 01500
CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Temporary Utilities: Electricity, telephone service, facsimile service and sanitary facilities.
- B. Temporary Controls: enclosures and fencing, protection of the Work and water control.
- C. Construction Facilities: progress cleaning and temporary buildings.

1.2 TEMPORARY ELECTRICITY

- A. Cost: By Contractor; pay for temporary power service furnished by MoDOT.

1.3 TELEPHONE SERVICE

- A. Provide, maintain, and pay for telephone service to field office and Architect/Engineer's field office at time of project mobilization.

1.4 FACSIMILE SERVICE

- A. Provide, maintain and pay for facsimile service and a dedicated telephone line to field office and Architect/Engineer's field office at time of project mobilization.

1.5 TEMPORARY WATER SERVICE

- A. Connect to existing water source as directed for construction operations at time of project mobilization.
- B. Contractor will reimburse Owner for water used in construction as agreed upon at time of project mobilization.

1.6 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

1.7 FENCING

- A. Construction: Use plastic mesh safety fencing or better.

1.8 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion.

1.9 EXTERIOR ENCLOSURES

- A. Provide temporary weather tight closure of exterior openings to accommodate acceptable working conditions and protection for Products, to allow for temporary heating and maintenance of required ambient temperatures identified in individual specification sections, and to prevent entry of unauthorized persons. Provide access doors with self-closing hardware and locks.

1.10 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.11 SECURITY

- A. Provide security and facilities to protect Work and existing facilities and Owner's operations from unauthorized entry, vandalism or theft.
- B. Coordinate with Owner's security program.

1.12 ACCESS ROADS

- A. Provide and maintain access to fire hydrants, free of obstructions.
- B. Provide means of removing mud from vehicle wheels before entering streets.
- C. Designated existing on-site roads may be used for construction traffic.

1.13 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris and rubbish. Maintain site in a clean and orderly condition.
- B. Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces and other closed or remote spaces, prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- D. Collect and remove waste materials, debris and rubbish from site periodically and dispose off-site.
- E. Open free-fall chutes not permitted. Terminate closed chutes into appropriate containers with lids.

1.14 FIELD OFFICES AND SHEDS

- A. Office: Weather tight, with lighting, electrical outlets, heating and ventilating equipment and equipped with drawing rack and drawing display table.
- B. Provide space for Project meetings, with table and chairs to accommodate 6 persons.

1.15 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities and materials prior to Final Application for Payment inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS
Not Used.

PART 3 EXECUTION
Not Used.

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Product options.
- E. Substitutions.

1.2 RELATED SECTIONS

- A. Instructions to Bidders: Product options and substitution procedures.
- B. Section 01400 - Quality Control: Product quality monitoring.

1.3 PRODUCTS

- A. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- B. Provide interchangeable components of the same manufacture for components being replaced.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle Products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct and products are undamaged.
- C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement or damage.

1.5 STORAGE AND PROTECTION

- A. Store and protect Products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.
- D. For exterior storage of fabricated Products, place on sloped supports above ground.
- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of Products.
- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement or damage.
- I. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

1.6 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description is acceptable.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

1.7 SUBSTITUTIONS

- A. Architect/Engineer will consider requests for Substitutions only within 15 days after date established in Notice to Proceed.
- B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.
- C. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 - 1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
 - 2. Will provide the same warranty for the Substitution as for the specified Product.
 - 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 - 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 - 5. Will reimburse Owner for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request or when acceptance will require revision to the Contract Documents.
- F. Substitution Submittal Procedure:
 - 1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
 - 2. Submit shop drawings, product data and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
 - 3. The Architect/Engineer will notify Contractor in writing of decision to accept or reject request.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Adjusting.
- D. Project record documents.
- E. Operation and maintenance data.
- F. Spare parts and maintenance Products.
- G. Warranties.

1.2 RELATED SECTIONS

- A. Section 01500 - Construction Facilities and Temporary Controls: Progress cleaning.
- B. Section 01650 - Starting of Systems: System start-up, testing, adjusting and balancing.

1.3 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Architect/Engineer's review.
- B. Provide submittals to Owner that is required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments and sum remaining due.
- D. Owner will occupy portions of the building as specified in Section 01010.

1.4 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces.
- B. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.
- C. Clean or replace filters of operating equipment used during construction and/or adjustment.
- D. Clean debris from roofs, gutters, downspouts and drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste and surplus materials, rubbish and construction facilities from the site.

1.5 ADJUSTING

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.

1.6 PROJECT RECORD DOCUMENTS

- A. Store record documents separate from documents used for construction.
- B. Record information concurrent with construction progress.
- C. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.

- D. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish main floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract drawings.
- E. Submit documents to Architect/Engineer with claim for final Application for Payment.

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable plastic covers.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project and subject matter of binder when multiple binders are required.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Submit 1 draft copy of completed volumes 15 days prior to final inspection. This copy will be reviewed and returned with Architect/Engineer comments. Revise content of all document sets as required prior to final submission.
- E. Submit two sets of revised final volumes, within 10 days after final inspection.

1.8 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra Products in quantities specified individual specification sections.
- B. Deliver to Project site; obtain receipt prior to final payment.
- C. Examine system components at a frequency consistent with reliable operation. Clean, adjust and lubricate as required.
- D. Include systematic examination, adjustment, and lubrication of components. Repair or replace parts whenever required. Use parts produced by the manufacturer of the original component.
- E. Maintenance service shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the Owner.

1.9 WARRANTIES

- A. Execute and assemble transferable warranty documents from Subcontractors, suppliers and manufacturers.
- B. Submit prior to final Application for Payment.
- C. For items of Work delayed beyond date of Final Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of the warranty period.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 02221
TRENCHING, BACKFILLING AND COMPACTING

PART 1 GENERAL

1.1 SUMMARY

- A. Trench, backfill, and compact as specified herein and as needed for installation of underground utilities associated with the Work.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions and Sections in Division 1 of these Specifications.

1.2 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirement and the methods needed for proper performance of the work of this Section.
- B. Use equipment adequate in size, capacity and numbers to accomplish the work in a timely manner.
- C. In addition to complying with requirements of governmental agencies having jurisdiction, comply with the directions of the construction soil engineer.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Comply with pertinent provisions of Section 01620.

PART 2 PRODUCTS

2.1 SOIL MATERIALS

- A. Fill and backfill materials:
 - 1. Provide soil materials free from organic matter and deleterious substances, containing no rocks or lumps over 6" in greatest dimension, and with not more than 15% of the rocks or lumps larger than 2-3/8" in their greatest dimension.
 - 2. Fill material is subject to the approval of the owner/architect and is that material removed from excavations or imported from off-site borrow areas, predominantly granular, non-expansive soil free from roots and other deleterious matter.
 - 3. Do not permit rocks having a dimension greater than 1" in the upper 12" of fill.
 - 4. Cohesionless material used for backfill: Provide sand free from organic material and other foreign matter and as approved by the Owner/Architect

2.2 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 FINISH ELEVATIONS AND LINES

- A. Comply with pertinent provision of Section 01050.

3.3 PROCEDURES

- A. Utilities:
 - 1. Unless shown to be removed, protect active utility lines shown on the drawings or otherwise made known to the Contractor prior to trenching. If damaged, repair or replace at no additional cost to the Owner.
 - 2. If active utility lines are encountered, and are not shown on the Drawings or otherwise made known to the Contractor, promptly take necessary steps to assure that service is not interrupted.
 - 3. If service is interrupted as a result of work under this Section, immediately restore service by repairing the damaged utility at no additional cost to the Owner.
 - 4. If existing utilities are found to interfere with the permanent facilities being constructed under this Section, immediately notify the Architect and secure his instructions.
 - 5. Do not proceed with permanent relocation of utilities until written instructions are received from the Architect.
- B. Protection of persons and property:
 - 1. Barricade open holes and depressions occurring as part of the Work, and post warning lights on property adjacent to or with public access.
 - 2. Operate warning lights during hours from dusk to dawn each day and as otherwise required.
 - 3. Protect structures, utilities, sidewalks, pavements and other facilities from damage caused by settlement, lateral movement, washout and other hazards created by operations under this Section.
- C. Dewatering:
 - 1. Remove all water, including rainwater, encountered during trench and sub-structure work to an approved location by pumps, drains and other approved methods.
 - 2. Keep trenches and site construction area free from water.
- D. Use means necessary to prevent dust becoming a nuisance to the public, to neighbors and to other work being performed on or near the site.
- E. Maintain access to adjacent areas at all times.

3.4 TRENCHING

- A. Comply with pertinent provisions of Section 02220 and the provisions of this Section.
- B. Provide sheeting and shoring necessary for protection of the Work and for the safety of personnel.
 - 1. Prior to backfilling, remove all sheeting.
 - 2. Do not permit sheeting to remain in the trenches except when, in the opinion of the Architect, field conditions or the type of sheeting or methods of construction such as use of concrete bedding are such as to make removal of sheeting impracticable. In such cases, the Architect may permit portions of sheeting to be cut off and remain in the trench.
- C. Open cut:
 - 1. Excavate for utilities by open cut.
 - 2. If conditions at the site prevent such open cut and if approved by the Architect, trenching may be used.
 - 3. Short sections of a trench may be tunneled if, in the opinion of the Architect, the conductor can be installed safely and backfill can be compacted properly into such tunnel.

4. Where it becomes necessary to excavate beyond the limits of normal excavations lines in order to remove boulders or other interfering objects, backfill the voids remaining after removal of the objects as directed by the construction soil engineer.
 5. When the void is below the subgrade for the utility bedding, use suitable earth materials and compact to the relative density directed by the construction soil engineer, but in no case to a relative density less than 90%.
 6. When the void is in the side of the utility trench or open cut, use suitable earth or sand compacted or consolidated as approved by the construction soil engineer but in no case to a relative density less than 80%.
 7. Remove boulders and other interfering objects and backfill voids left by such removals, at no additional cost to the Owner.
 8. Excavating for appurtenances:
 - a. Excavate for manholes and similar structures to a distance sufficient to leave at least 12" clear between outer surfaces and the embankment or shoring that may be used to hold and protect the banks.
 - b. Overdepth excavation beyond such appurtenances that has not been directed will be considered unauthorized. Fill with sand, gravel or lean concrete as directed by the construction soil engineer and at no additional cost to the Owner.
- D. Trench to the minimum width necessary for proper installation of the utility, with sides as nearly vertical as possible. Accurately grade the bottom to provide uniform bearing for the utility.
- E. Depressions:
1. Dig bell holes and depressions for joints after the trench has been graded. Provide uniform bearing for the pipe on prepared bottom of the trench.
 2. Except where rock is encountered, do not excavate below the depth indicated or specified.
 3. Where rock is encountered, excavate rock to a minimum overdepth of 4" below the trench depth indicated or specified.
- F. Where utility runs traverse public property or are subject to governmental or utility company jurisdiction, provide depth, bedding, cover and other requirements as set forth by legally constituted authority having jurisdiction but in no case less than the depth shown in the Contract Documents.
- G. Where trenching occurs in existing lawns, remove turf in sections and keep damp. Replace turf upon completion of the backfilling.
- H. Cover:
1. Provide minimum trench depth indicated below to maintain a minimum cover over the top of the installed item below the finish grade or subgrade.
 - a. Areas subject to vehicular traffic:
 - (1) Sanitary sewers:
 - (2) Storm drains:
 - b. Areas not subject to vehicular traffic:
 - (1) Sanitary sewers: 30";
 - (2) Storm drains: 18".
 - c. All areas:
 - (1) Water lines: 30";
 - (2) Natural gas lines: 24";
 - (3) Electrical cables: 42";
 - (4) Electrical ducts: 36".
 - d. Concrete encased:
 - (1) Pipe sleeves for water and gas lines: 24";
 - (2) Sanitary sewers and storm drains: 12";
 - (3) Electrical ducts: 24".

2. Where utilities are under a concrete structure slab or pavement, the minimum depth need only be sufficient to completely encase the conduit or pipe sleeve and electrical long-radius rigid metal conduit rise, provided it will not interfere with the structural integrity of the slab or pavement.
3. Where the minimum cover is not provided encase the pipes in concrete as indicated. Provide concrete with a minimum 28th day compressive strength of 2500 psi.

3.5 BEDDING

- A. Provide bedding as indicated on the Drawings.

3.6 BACKFILLING

- A. General:
 1. Do not completely backfill trenches until required pressure and leakage tests have been performed, and until the utilities systems as installed conform to the requirements specified in the pertinent Sections of these Specifications.
 2. Except as otherwise specified or directed for special conditions, backfill trenches to the ground surface with selected material approved by the construction soil engineer.
 3. Reopen trenches that have been improperly backfilled, to a depth as required for proper compaction. Refill and compact as specified or otherwise correct to the approval of the construction soil engineer.
 4. Do not allow or cause any of the Work performed or installed to be covered up or enclosed by work of this Section prior to required inspections, tests and approvals.
 5. Should any of the Work be so enclosed or covered up before it has been approved, uncover all such Work and, after approvals have been made, refill and compact as specified, all at no additional cost to the Owner.
- B. Lower portion of trench:
 1. Deposit approved backfill and bedding material in layers of 6" maximum thickness, and compact with suitable tampers to the density of the adjacent soil, or grade as specified herein, until there is a cover of not less than 24" over sewers and 12" over other utility lines.
 2. Take special care in backfilling and bedding operations to not damage pipe and pipe coatings.
- C. Remainder of trench:
 1. Except for special materials for pavements, backfill the remainder of the trench with material free from stones larger than 6" or 1/2 the layered thickness, whichever is smaller, in any dimension.
 2. Deposit backfill material in layers not exceeding the thickness specified and compact each layer to the minimum density directed by the construction soil engineer.
- D. Adjacent to buildings: Mechanically compact backfill within ten feet of buildings.
- E. Consolidation of backfill by jetting with water may be permitted, when specifically approved by the construction soil engineer, in areas other than building and pavement areas.

3.7 TEST FOR DISPLACEMENT OF SEWERS AND STORMDRAINS

- A. Check sewers and storm drains to determine whether displacement has occurred after the trench has been backfilled to above the pipe and has been compacted as specified.
- B. Flash a light between manholes or, if the manholes have not yet been constructed, between the locations of the manholes, by means of a flashlight or by reflecting sunlight with a mirror.
- C. If the illuminated interior of the pipeline shows poor alignment, displaced pipes, or any other defects, correct the defects to specified conditions and at no additional cost to the Owner.

3.8 PIPE JACKING

- A. The Contractor may, at his option, install steel pipe casings, tongue-and-groove reinforced concrete pipes, and steel pipes under existing roads or pavements by jacking into place using procedures approved by the governmental agencies having jurisdiction approved by the construction soil engineer.

3.9 TUNNELING OPERATIONS

- A. The Contractor may, at his option, tunnel pipes into position using procedures approved by the construction soil engineer and the governmental agencies having jurisdiction.

3.10 FIELD QUALITY CONTROL

- A. The construction soil engineer will inspect open cuts and trenches before installation of utilities, and will make the following tests:
 - 1. Assure that trenches are not backfilled until all tests have been completed.
 - 2. Check backfilling for proper layer thickness and compaction.
 - 3. Verify that test results conform to the specified requirements, and that sufficient tests are performed.
 - 4. Assure that defective work is removed and properly replaced.

END OF SECTION

SECTION 08360
SECTIONAL OVERHEAD DOORS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Electric overhead sectional door.
- B. Operating hardware, supports and controls.

1.2 RELATED SECTIONS

- A. Section 16100 – Electrical: Wiring.

1.3 REFERENCES

- A. ANSI A216.1 - Sectional Overhead Type Door (NAGDM 102).
- B. ASTM A526/A526M - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process, Commercial Quality.
- C. NEMA MG 1 - Motors and Generators.
- D. NFPA 70 - National Electrical Code. Conform to BOCA code for motor and motor control requirements. Listed and classified by Underwriters Laboratories, Inc.

1.4 SYSTEM DESCRIPTION

- A. Panels: Aluminum.
- B. Lift Type: High lift operating style with track and hardware.
- C. Operation: Electric.
- D. Loads: Design and size components to withstand dead and live loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with BOCA code.

1.5 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Shop Drawings: Indicate opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations and installation details.
- C. Product Data: Provide component construction, anchorage method and hardware.
- D. Samples: Submit two exterior and interior panel finish samples, 18 x 18 inches in size, illustrating color and finish.

1.6 SUBMITTALS AT PROJECT CLOSEOUT

- A. Section 01700 - Operation and Maintenance Data: Procedures for submittals.
- B. Operation Data: Include electrical control adjustments.
- C. Maintenance Data: Include data for motor and transmission, shaft and gearing, lubrication frequency, spare part sources.
- D. Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with ANSI A216.1, Application Type: Industrial. Maintain one copy on site.
- B. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years experience.

- C. Installer: Company specializing in performing the work of this section and approved by manufacturer.
- D. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

1.8 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials and products in labeled protective packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from damage from weather, excessive temperatures and construction operations.

1.9 WARRANTY

- A. Section 01700 - Warranties.
- B. Correct defective Work within a one-year period after Date of Substantial Completion.
- C. Warranty: Include coverage for electric motor and transmission.
- D. Provide a one-year manufacturer warranty for electric operating equipment.

PART 2 PRODUCTS

2.1 SECTIONAL OVERHEAD DOORS

- A. Provide standard sectional overhead doors of the dimensions and arrangements shown on the drawings, and with the following attributes: Equal to Overhead Doors Inc., 521 Series, Aluminum Sectional Door.
 - 1. Design wind load: Comply with NAGDM specification 102-1976, except that minimum wind load shall be 90 mph.
 - 2. Sectional Door Assembly: Stile and rail assembly secured with 1/4" diameter through rods. Units shall have the following characteristics:
 - a. Panel Thickness: 1-3/4".
 - b. Aluminum Panels: 0.050" thick, alloy 6063-T6.
 - c. Springs: Springs will be 15,000 cycles.
 - d. Glazing: Not required.
 - 3. Track and Hardware:
 - a. Tracks shall be 2" wide galvanized steel, mounted by continuous galvanized steel angle.
 - b. Stainless Steel lift cables shall have a safety factor of 8 to 1.
 - c. Roller shall be full-floating ball bearings with hardened steel racers.
 - d. Counterbalance shall consist of a torsion spring mounted on a continuous thru solid steel shaft.
 - e. Provide interior side locking device, which with a slide bar extends through the left and right side tracks.
 - f. Astragal - Provide "U" type rubber astragal at the bottom edge of each door or an approved equal.
 - 4. Finish: Provide the manufacturer's standard pre-finish system in color selected by the owner from the manufacturer's standard colors.
 - 5. Electric Sensing Edge: Provide for each door. Provide safety edges by Air Wave, Miller Edge, Model number AW14K500 with coil cord or equal, extending the full width of the door. Upon contact with an obstruction the downward travel of the door shall be stopped or reversed.
 - 6. Weather strip
 - a. Between sections will be EPDM rubber tube seals fitted every joint.
 - b. Jamb seals. Provide pliable bulb seals.

2.2 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.
- B. Exterior Surfaces: Factory painted. (White)
- C. Interior Surfaces: Factory painted. (White)

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify that wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. Verify that electric power is available and of the correct characteristics.

3.2 PREPARATION

- A. Prepare opening to permit correct installation of door unit to perimeter air and vapor barrier seal.

3.3 INSTALLATION

- A. Install door unit assembly in accordance with manufacturer's instructions.
- B. Anchor assembly to wall construction and building framing without distortion or stress.
- C. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- D. Fit and align door assembly including hardware.
- E. Coordinate installation of electrical service, power and control wiring by electrical contractor from disconnect to unit components.
- F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07900.
- G. Install perimeter trim and closures.

3.4 ERECTION TOLERANCES

- A. Section 01400 - Quality Assurance: Tolerances.
- B. Maximum Variation from Plumb: 1/16 inch.
- C. Maximum Variation from Level: 1/16 inch.
- D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch from 10 ft straight edge.
- E. Maintain dimensional tolerances and alignment with adjacent work.

3.5 MANUFACTURER'S FIELD SERVICES

- A. Section 01650 - Starting of Systems: Prepare and start systems.
- B. Ensure the operation and adjustments to door assembly for specified operation.

3.6 ADJUSTING

- A. Section 01650 - Starting of Systems: Adjusting installed work.
- B. Adjust door assembly to smooth operation and in full contact with weather stripping.

3.7 CLEANING

- A. Section 01700 - Contract Closeout: Cleaning installed work.
- B. Clean doors, frames and glass.
- C. Remove temporary labels and visible markings.

3.8 PROTECTION OF FINISHED WORK

- A. Section 01700 - Contract Closeout: Protecting installed work.
- B. Do not permit construction traffic through overhead door openings after adjustment and cleaning.

3.9 SCHEDULES

- A. Refer to Door Schedule on Architectural Drawings

END OF SECTION

**SECTION 08720
ELECTRIC DOOR OPERATORS**

PART 1 GENERAL

1.1 SUMMARY

- A. Provide electric trolley type sectional overhead door operator and electric rolling door operator, where shown on the Drawings, as specified herein and as needed for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include but are not necessarily limited to, General Conditions, Supplementary Conditions and Sections in Division 1 of these Specifications.

1.2 SUBMITTALS

- A. Product data: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this Section;
 - 2. Manufacturers' specifications and other data needed to prove compliance with the specified requirements;
 - 3. Shop drawings showing general layout, installation, materials, construction and assembly wiring.
 - 4. Manufacturers' recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.
- B. Upon completion of this portion of the work and as a condition of its acceptance, deliver to the owner three copies of the operation and maintenance manual.

1.3 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- B. Comply with all governmental agencies having jurisdiction in this work.
- C. Each operator shall have a minimum one (1) year manufacturer's warranty.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with pertinent provisions of Section 01620.

PART 2 PRODUCTS AND MATERIAL

2.1 REQUIRED ATTRIBUTES

- A. Trolley Type:
 - 1. Motor - 115V single phase, 1/2 hp instant reversing with automatic reset thermal overload. Equal to Overhead Door Corp. Model "JST".
 - 2. Reversing Contactor - Heavy duty, electrically and mechanically interlocked.
 - 3. Limit Switches - Adjustable rotary type synchronized with door operation.
 - 4. Control Circuit - 24 volt class 2, three button, OPEN-CLOSE-STOP.
 - 5. Reduction - Primary-V-belt, secondary-chain and sprocket.
 - 6. Clutch - Adjustable disc friction type.
 - 7. Brake - Solenoid actuated drum type.

8. Where required provide car wash modification, electrical enclosure and 3-button station meeting NEMA 1.
9. Electric bottom safety edge with coil cord.

2.2 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 EXECUTION

3.1 SURFACE CONDITIONS

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install the work of this section in strict accordance with the manufacturer's recommendations and shop drawings and in accordance with pertinent requirements of governmental agencies having jurisdiction.
- B. Electrical contractor will run electricity to the electric door operator. Final connection to the door operator shall be the responsibility of the electric door operator installer.

3.3 ADJUSTMENTS AND INSTRUCTIONS

- A. Upon completion of the installation, carefully inspect each component and verify that all items have been installed in the proper location, adequately anchored and adjusted to achieve optimum operation.
- B. Demonstrate to the owner, operation and maintenance procedures.

END OF SECTION

SECTION 13120
PRE-ENGINEERED FABRIC STRUCTURE

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Pre-engineered, shop fabricated structural steel building frame.
- B. Doors and Louvers.

1.2 REFERENCES

- A. AISC - Specification for Structural Steel for Buildings - Allowable Stress Design and Plastic Design.
- B. ASTM A123 - Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- C. ASTM A325 / A325M - High Strength Bolts for Structural Steel Joints.
- D. ASTM A653 / A653M – Sheet Steel, Zinc-Coated (Galvanized) or Zinc Iron Alloy Coated (Galvannealed) by the Hot Dip Process.
- E. ASTM A501 - Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
- F. ASTM A550 – Structural Steel with 60ksi Minimum Yield Point.
- G. AWS A2.0 - Standard Welding Symbols.
- H. AWS D1.1 - Structural Welding Code - Steel.

1.3 SUMMARY

The Missouri Department of Transportation desires the manufacturer, delivery, and on-site installation of a “Fabric Type” Stressed Skin Membrane Salt Storage Structure covering: wall louvers, passage doors, and roll up service doors as referenced in this specification and the drawings. The structure will be erected on interlocking concrete blocks provided and installed under this contract. The structure shall be rectangular in shape with vertical gable end walls. The interior of the structure below the main trusses shall be clear span free of any structural support members and shall provide unobstructed floor space. No exterior purlins, guy ropes or cables shall be used for anchoring the structure.

1.4 ENGINEERED DESIGN REQUIREMENTS

The structure shall be designed in accordance with appropriate building code standards for the state of Missouri. Primary and secondary framing shall comply with current issues of AISC, AISI, NEMA, and ASTM specifications, as applicable. Structural members shall be designed using Allowable Stress Design (ASD) or Load Resistance Factored Design (LRFD) for the design loads given below. Appropriate safety factors to yield and ultimate strength shall be maintained. Wind load factors and coefficients used in design of structural members must be in accordance with Missouri code guidelines.

- A. Design members to withstand 12 psf live load and 3 psf collateral load (minimum) or as determined by the collaboration of equipment suppliers.
- B. Snow Loads: The structure shall be designed based upon a 20 psf nominal snow load.
- C. Wind Loads: The structure shall be capable of withstanding wind loads of 90 mph, (3 second wind gust) (Exposure “C”).
- D. Rainfall: The structure shall be capable of withstanding the effects of rainfall up to 4 inches per hour for at least 2 hours.
- E. Permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects, when subject to temperature range of -15° to +115° F.
- F. Building plans to be sealed by a Professional Engineer, Licensed in the state of Missouri.
- G. The structure shall be capable of being erected on concrete and of accepting differential settlement of up to 2-1/2% between truss positions.

1.5 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections, attachments, and openings; general construction details, anchorages and method of anchorage, method of installation; framing anchor bolt settings, sizes and locations from datum and foundation loads; indicate welded connections with AWS A2.0 welding symbols; provide professional seal and signature.
- C. Samples: Submit two samples of fabric covering for each color selected, 6x6 inch in size illustrating color and texture of finish.
- D. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- E. Erector Qualifications: Company specializing in performing the work of this section with minimum 5 years documented experience or approved by manufacturer.
- F. Design structural components, develop shop drawings, and perform shop and site work under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State of Missouri.

1.6 PRE-INSTALLATION MEETING

- A. Section 01039 - Coordination and Meetings: Pre-installation meeting.
- B. Convene one week before starting work of this section.

1.7 WARRANTY

- A. Membrane - Provide a fifteen-year prorated warranty to include coverage for exterior surfaces, including main structure fabric and end wall fabric, against ripping, tearing, or puncturing. Include coverage for weather tightness of building enclosure elements after installation.
 - 1. Seven-years full coverage including equipment, labor, and all associated costs.
 - 2. Eight-years prorated including equipment, labor, and all associated costs at a rate of 1/96th per month for the last eight years.
- B. Steel
 - 1. Provide a twenty-year warranty against defects on workmanship.
 - 2. Provide a fifteen-year full coverage warranty to include all metal components, including main frame and end wall framing, and bracing, to cover corrosion resistance.

PART 2 PRODUCTS

The pre-engineered fabric storage structure shall be 60' wide x 100' long as manufactured by HSS Structure Systems, Inc., or approved equal as specified in these specifications and shown on the drawings.

2.1 FRAMING MATERIALS

- A. Structural Steel Tubing: ASTM A500, Grade C.
- B. Plate or Bar Stock: ASTM A529 / A529M.
- C. Bolts, Nuts, and Washers: ASTM A325, galvanized to ASTM A153.
- D. Welding Materials: AWS D1.1; type required for materials being welded.
- E. Grout: ASTM C1107, Non-shrink type, premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents, capable of developing minimum compressive strength of 2400 psi in two days and 7000 psi in 28 days.

2.2 DESIGN REQUIREMENTS

- A. Fabric membrane including fabric doors.
1. The building cover shall be fire retardant/self extinguishing polyvinyl chloride membrane with a topcoat of Acrylic/PVDF, no less than 22 +/- 1 ounces per square yard minimum finish weight as manufactured by Naizil Coated Fabrics or approved equal.
 2. The building cover shall demonstrate physical properties equal to or greater than the following:

a.	Grab Tensile (Method 5100)	650 x 630 lb
b.	Tongue Tear (Method 5134)	150 x 130 lb
c.	Trapezoid Tear (Method 5136)	125 x 95 lb
d.	Adhesion In House (Force 2cm)	20 lb
e.	Cold Crack (Method 5874 @ 30 C)	No cracking or flaking
f.	Flame Resistance	NFPA 701 – 1996 Edition Test Method 1 NFPA 702 – 1996 Edition Test Method 2 NFPA 701 – 1989 Edition Small Scale Test NFPA 701 – 1989 Edition Large Scale Test
 3. The building cover shall be manufactured utilizing a process, which eliminates 99% of the stretch post fabrication. In order to provide for a good finished appearance and to insure weather tightness, the membrane shall be assembled and tensioned, in a manner to minimize wrinkles in hot and cold temperatures. Each bay (frame centerline to frame centerline) shall utilize a single piece membrane with an extruded PVC core. The membrane must be attached using Keder as specified below. The PVC core will be sealed within the membrane by using a Miller Weld Master Rotary sealer designed specifically for Keder production. The Keder will be attached to the main truss cord utilizing extruded aluminum channel, which shall be fastened using galvanized/zinc coated screws. A single (one piece) membrane over the entire structure will not be acceptable.
 4. Base Tensioning System: The membrane cladding will be provided with a mechanical tensioning system that allows the membrane to be fully tensioned around the structure perimeter. The system will be designed such that the membrane can be tightly and neatly secured over the structural frame and such that the system has a remaining range of adjustment.
 5. The structure supplier will provide all materials and methods necessary to fully tension and seal the membrane material around all door, ventilation and other openings as well as around the structure perimeter below the main tensioning system. This seal shall provide a neat and finished appearance and eliminate any loose membrane cladding that could otherwise be damaged by flapping or abrasion. When a membrane skirt is required, this shall be supplied and attached at the base perimeter to allow a reasonable seal against air and water intrusion.
 6. The structure membrane shall not be designed to function as a structural member such that, should any damage to or penetrations of the membrane occur, the integrity of the structural framework shall not be affected.
 7. The membrane shall be tensioned in a fashion that requires no on going maintenance and continuous re-tensioning.

B. Building Framework

1. All structural steel shall be ASTM A 500, Grade C structural steel.
2. The Owner prefers the frame configuration as shown on the drawings; however, the Owner will accept "or equal" provided the clearance dimensions are met.
3. All structural steel is to be hot dip galvanized post fabrication to meet: CSA G164-M92 and ASTM A123 Standards Average Zinc Coating of 810 g/m2. All fabrication of steel trusses and perlin's including connection plates and other related components must be fabricated prior to any galvanizing to ensure complete interior and exterior coverage of zinc coating.
4. Painting of steel components shall only be utilized if necessary for field repairs and shall not be employed as a factory finish. Should field repair be necessary, a zinc-rich field coat shall be used.
5. The Contractor is responsible for the design of the structural support members and the installation of the end wall louvers as specified and shown on the drawings.
6. Purlin spacing to provide for structural stability and to provide for installation of accessory items, the main structural trusses shall be laterally braced by tubular perlin's at intervals required by the truss design.

C. Bolts, Nuts, and Washers

1. Bolts subject to extreme stress and wear shall be structural bolts of Grade 5 and plated / galvanized or upgraded with Sun Seal corrosion resistance. All bolts shall be installed and securely torqued so as to prevent change in tightness. Those subject to removal or adjustment shall not be swaged, peened, staked, or otherwise installed.
2. ASTM A325 minimum grade specification.
3. All connections to use a retaining compound.

D. Plate or bar stock to be ASTM A36.

E. All welds must conform to American Welding Standards.

F. Garage Doors

1. Provide vertical fabric doors size and locations as shown on plans.
2. Provide Northern Industrial Tools 1100-Lb. Electric Hoist, Item# 14230-2503, as provided by Northern Tool & Equipment (1-800-556-7885), with stainless steel cable, for vertical fabric doors.

G. Passage Doors

1. Provide fiberglass skin doors size and location as shown on plans.

H. Ventilation Louvers

1. Provide two (2) 36" Dayton Fiberglass Dampers model 5C220, or approved equal at each end wall as shown, non-operable, with a galvanized bird and insect screen. Contractor to provide adequate blocking for louvers.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01039 - Coordination and Meetings: Verification of existing conditions before starting work.
- B. Verify that foundation, floor slab, mechanical and electrical utilities and placed anchors are in

correct position

3.2 INSPECTION, QUALITY CONTROL

- A. Inspections will be made during the building installation. Inspections will be made to ensure the quality of the materials and the procedures for installation are being followed. The Owner and the Engineer shall be held harmless of any and all responsibility for the overall safety of the job site for construction activity normally associated with OSHA requirements.
 - 1. The Contractor shall be responsible for OSHA compliance for his/her personnel and sub-contractors.
- B. The Contractor shall provide on-site finished, quality products as specified and shown on the drawings. Burning, cutting, welding, or other on-site modifications to the structure, doors, or louvers will not be allowed unless approved by the Owner and/or the Engineer.
- C. Once started, installation shall be continuous until completion.

3.2 ERECTION - FRAMING

- A. Erect framing in accordance with AISC Specification.
- B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing. No permanent bracing shall intrude upon specified minimum clearance height.
- C. Set base plates with non-shrink grout to achieve full plate bearing.
- D. Do not field cut or alter structural members without approval.

3.3 ERECTION - WALL AND ROOFING SYSTEMS

- A. Install in accordance with manufacturer's instructions.
- B. Exercise care when cutting pre-finished material to ensure cuttings does not remain on finish surface.
- C. Fasten fabric system to structural supports, aligned level and plumb.

3.4 TOLERANCES

- A. Framing Members: 1/4 inch from level; 1/8 inch from plumb.

END OF SECTION

**SECTION 16100
ELECTRICAL WORK**

16101 GENERAL

- A. Requirements of the conditions of the contract and Instruction to Bidders, and General Conditions, apply to all work of this Section.
- B. Provide complete electrical service where shown on the drawings, as specified herein, and as needed for a complete and proper installation including, but not necessarily limited to:
 - 1. Panelboards as needed.
 - 2. Branch circuit wiring, in conduit for lighting, receptacles, junction boxes and motors.
 - 3. Hangers, anchors, sleeves, chases, supports, for fixtures and other electrical material and equipment in association therewith.
 - 4. Lighting fixtures and lamps.
 - 5. Wiring system, in conduit, for equipment and control provided under other Sections of these specifications.
 - 6. Other items and services required to complete the system.
- C. Related Work
 - 1. Documents affecting work of this section include, but are not necessarily limited to, General Conditions, Supplementary Conditions and Sections in Division 1 of these specifications

16102 FIELD CONDITIONS AND MEASUREMENTS

- A. The Electrical Contractor shall visit the site of the work and familiarize himself with all available information concerning the structural, excavations, the location condition bearing on transportation, handling, and storage of materials. The Electrical Contractor shall make his own estimate of the facilities needed, and difficulties of execution of the contract including local conditions, availability of labor, uncertainties of weather, transportation, and other contingencies. Failure of the contractor to acquaint himself with all available information concerning these conditions will not relieve him from responsibility for estimating the difficulties and costs or successfully performing the complete work.

16103 CLEAN UP

- A. The Electrical Contractor shall have electrical rubbish and debris removed from the premises as directed. On completion of the electrical contract all associated debris and rubbish shall be removed from the premises.
- B. All electrical equipment and materials furnished by this contractor shall be thoroughly cleaned and ready for use upon completion of the work.

16104 GUARANTEE

- A. Contractor guarantees by his acceptance of the contract, that all work installed shall be free from any defects in workmanship and/or materials and that all apparatus will develop capacities and characteristics specified and that if, during a period of one year or as therefore specified, from substantial completion of work, any such defects in workmanship, materials or performance appear, he will with no cost to owner remedy such defect.

16105 CODES

- A. All electrical work shall be done in strict accordance with the National Electrical Code and all regulations, laws and ordinances which may be applicable.

16106 SUBMITTALS

- A. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
 - 1. Materials list of items proposed to be provided under this section.
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Manufacturer's recommended installation procedures which, when approved by the owner/architect, will become the basis for accepting or rejecting actual installation procedures used on the work.
- B. Submittals shall include the following:
 - 1. Panelboards
 - 2. Lighting fixtures
 - 3. Wiring devices
 - 4. Electric cord reels
- C. Samples
 - 1. When so requested by the owner/architect, promptly provide samples of items scheduled to be exposed in the final structure.
 - 2. When specifically so requested by the Contractor and approved by the Architect, approved samples will be returned to the Contractor for installation on the work.
- D. Manuals: Upon completion of this portion of the work, and as a condition of its acceptance, deliver to the owner/architect two copies of an operation and maintenance manual. Include with each manual.
 - 1. Copy of the approved record documents for this portion of work.
 - 2. Copies of all circuit directories.
 - 2. Copies of all warranties and guarantees.

16107 QUALITY ASSURANCE

- A. Use adequate number of skilled workmen who are thoroughly trained and experienced in the crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
- B. Without additional cost to the owner, provide such other labor and materials as are required to complete the work of this section in accordance with the requirements of governmental agencies having jurisdiction, regardless of whether such materials and associated labor are called for elsewhere in these contract documents.

16108 CONDUIT

- A. All interior wiring above grade shall be installed in electrical metallic tubing with screw coupling fittings.
- B. All interior wiring below slab shall be Galvanized Rigid Steel conduit. Schedule 40 PVC conduits may be used if approved by Owner/Architect. If PVC is used the last two feet to point of emergence shall be Galvanized Rigid Steel conduit with grounding bushing and a grounding conductor sized according to ART. 250-95 of the National Electrical Code shall be installed.
- C. Wiring in office areas shall be concealed, wiring in shop and storage areas shall be installed on surface.
- D. All exterior wiring shall be in galvanized Rigid Steel Conduit.
- E. Type MC cable with grounding conductor or type AC cable may be used for fixture whips.

16109 WIRE AND CABLE

- A. Building wire and cable with 600 volt insulation shall be 98% conductivity copper unless otherwise noted. The minimum size conductor for lighting and power shall be No. 12 AWG. The minimum size conductor for control shall be No. 14 AWG.
- B. Conductors sized No. 10 and smaller shall be Type "THHN" solid or stranded as required unless otherwise noted, sizes No. 8 and larger shall be type "THHN" stranded unless otherwise noted.
- C. Conductors shall be colored coded as required by governmental agencies having jurisdiction or as required by the National Electrical Code.
- D. Contractor shall provide and install all telephone and data cable and equipment as required by the project and per specifications sections 16930.
- E. Contractor shall provide and install all of the grounding and grounding field as required by this project and per specification section 16931.
- F. Tele/ data cables installed above accessible ceilings may be installed without conduit. Tele/data cables installed above non-accessible ceilings and on surface shall be in conduit. Open cables installed in space used for environmental air shall be rated for plenum use.

16110 JUNCTION AND OUTLET BOXES

- A. Outlet Boxes
 - 1. Provide standard one-piece units, galvanized or sherardized steel of shape and size best suited to that particular location, of sufficient size to contain enclosed wires according to ART. 370-16 of the National Electrical Code.
 - 2. Provide outlet boxes 2 1/8" deep for 1" conduits.
 - 3. For lighting outlets, provide standard 4" octagon or square units with 3/8" fixture stud and box hanger where required.
 - 4. For switches and receptacles, provide standard boxes with plaster or dry wall ring with stainless steel cover plate for concealed devices and pressed steel boxed with galvanized or cadmium plated steel cover plates for exposed devices.
- B. Junction or Pull Boxes
 - 1. Interior junction boxes shall be galvanized code-gauge sheet steel units with screw-on covers, of size and shape required to accommodate wires without crowding, and to suit the location.
 - 2. Exterior boxes shall meet NEMA 3R or 4 standards.

16111 LIGHTING FIXTURES

- A. Install lighting fixtures, complete with lamps, as shown on drawings and schedules. Manufacturers shown on schedules are for quality and type only, manufacturers of equal quality will be accepted if approved by owner.
 - 1. Recessed fixtures:
 - a. Provide unit having an attached pull box and with UL label.
 - b. Provide local label in addition if so required by governmental agencies having jurisdiction..
 - 2. Fluorescent fixtures
 - a. Provide ballasts thermally protected against overheating by built-in thermal protectors sensitive to ballast winding temperature and current.
 - b. Provide protector preventing winding temperature from exceeding 120 degrees C, allowing winding temperatures to reach 105 degrees C under normal operating conditions at 40 degrees C ambient and, after opening, not reclosing above 80 degrees C.
 - c. Exterior ballast shall be cold weather type.
 - d. Where fixture substitutes are proposed, submit a sample fixture with materials list required to be submitted under Art. 16106 above.
 - e. Light fixtures in work areas shall be located so as not to interfere with the

operation of overhead doors.

16112 WIRING DEVICES

- A. Toggle switches - Mount 48" above finished floor.
 - 1. 3-way Leviton 5523-I
- B. Receptacles - Mount 48" above Finished.
 - 1. Duplex receptacles Leviton 5800-I
 - 2. Weatherproof duplex receptacles Leviton 6599-I mounted in FS box and 6196-VFS cover.
 - 3. Ground Fault Interrupter duplex receptacles Leviton 6599-I
 - 4. Isolated ground receptacles Leviton 5262-IG
- C. Outlets on surface shall be 4" x 4" x 1 1/2" outlet box and 4" x 4" raised cover plate.
- D. Devices of the following manufacturers will be accepted as equal.
 - 1. Hubbel
 - 2. Arrow-Hart
 - 3. General Electric

16113 PANELBOARDS

- A. Panelboards shall be Sq. 'D' Type with circuit breakers as shown on drawings and schedules, and shall be Service Entrance Rated.

16114 TRANSFORMERS

- A. Service Entrance Transformer is not part of this contract.

16115 GROUNDING

- A. Install a 5/8" x 10' copperclad ground rod at service entrance with a #6 bare copper conductor between ground rod and grounding bus in Panel board.
- B. All grounding shall comply with ART. 250 of the National Electrical Code.

16116 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation as approved by the Architect.

16117 EXECUTION

- A. Surface Conditions
 - 1. Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

16118 PREPARATION

- A. Coordinate
 - 1. Coordinate as necessary with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this section.
 - 2. Coordinate the installation of electrical items with the schedule for work of other trades to prevent unnecessary delays in the total work.
- B. Data indicated on the drawings and in these specifications are as exact as could be secured but there absolute accuracy is not warranted. The exact locations, distances, levels and other conditions will be governed by actual construction and the drawings and specifications should be used only for guidance in such regard.
- C. Verify all measurements at the building. No extra compensation will be allowed because of differences between work shown on the drawings and actual measurements at the site of

- construction.
- D. Branch circuit wiring and arrangement of home runs have been designed for maximum economy consistent with adequate sizing for voltage drops and other considerations. Install the wiring and circuits arranged exactly as shown on the Drawings, except as otherwise approved in advance by the architect.
 - E. The electrical drawings are diagrammatic, but are required to be followed as closely as actual construction and work of other trades will permit. Where deviations are required to conform actual construction and the work of other trades, make such deviations without additional cost to the owner.

16119 TRENCHING AND BACKFILLING

- A. Perform trenching and backfilling associated with the work of this section in strict accordance with the provisions of the appropriate sections of these specifications.

16120 INSTALLATION OF RACEWAYS AND FITTINGS

- A. Where conduit is installed concealed in the walls or above the ceiling, or exposed in work areas, provide rigid galvanized conduit or electrical metallic tubing with screw type fittings.
- B. Use flexible metal conduit only for short motor connections or where subject to vibration.
- C. Provide necessary sleeves and chases where conduits pass through floors and walls, and provide other necessary openings and spaces, arranging for in proper time to prevent unnecessary cutting in connection with the work. Perform cutting and patching in accordance with the provisions for the original work.
- D. Where conduit is exposed, run parallel to or at right angle with lines of the building.
- E. Securely and rigidly support conduits throughout the work. Conduits and wiring above a ceiling assembly shall not be supported to, or supported by, the ceiling assembly, including the ceiling support wires.

16121 INSTALLATION OF CONDUCTORS

- A. Unless otherwise shown use #12 type THHN conductors for all branch circuits protected by 20 amp circuit breakers. Where so indicated on the drawings, use larger wires to limit voltage drops.
- B. Use identified (white) neutrals and color-coded phase wires for all branch circuit wiring.
 - 1. Make splices electrically and mechanically with pressure-type connectors.
 - a. For wire size #6 AWG and smaller, provide "Scotch-Lock" connectors.
 - 2. Insulate splices with a minimum of two half-lapped layers of Scotch Brand #33 vinyl-plastic electrical tape where insulation is required.
- C. Tape all joints with rubber tape 1 1/2 times the thickness of the conductor insulation, than cover with vinyl-plastic electrical tape specified above.
- D. The drawings do not indicate the home runs. Continue all home runs to the panel as though the routes were shown completely.

16122 INSTALLATION OF PANELS

- A. Install panels as shown on drawings and specifications or as directed by the owner/architect.
- B. Mount a typewritten directory behind glass or plastic on the inside of each panel door and, on the directory, show the number and complete description of all outlets on each circuit.

16123 TESTING AND INSPECTION

- A. Make required tests in the presence of the owners representative and required approvals from the owner/architect and governmental agencies having jurisdiction.
- B. Make written notice to the owner/architect adequately in advance of each of the following stages of construction.
 - 1. In the underground condition prior to placing concrete floor slab, when all associated electrical is in place.
 - 2. When all rough in is complete, but not covered.
 - 3. At completion of the work of this section.
- C. When material and/or workmanship is found to not comply with the specified requirements, within three days after receipt of notice of such non-compliance remove the non-complying items from the job site and replace them with items complying with the specified requirements, all at no additional cost to the owner.
- D. In the owner/architect's presence:
 - 1. Test all parts of the electrical systems for phase to phase and phase to ground short circuits and prove that all such items provided under this section function electrically in the required manner.
 - 2. Immediately submit to the architect a report of maximum and minimum voltages and a copy of the recording voltmeter chart.
 - 3. Also measure voltages between phase wires and neutral and report these voltages to the Architect.

16124 PROJECT COMPLETION

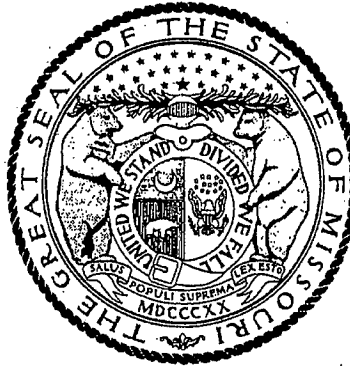
- A. Upon completion of the work of this section, thoroughly clean all exposed portions of the electrical installation, removing all traces of soil, labels, grease, oil, and other foreign material and using only the type cleaner recommended by the manufacturer of the item being cleaned.
- B. Thoroughly indoctrinate the owner's operation and maintenance personnel in the contents of the operations and maintenance manual required to be submitted under article 16106 of this section of these specifications.

END OF SECTION

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MATT BLUNT, Governor

Annual Wage Order No. 13

Section 047
IRON COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by

Allen E. Dillingham, Director
Division of Labor Standards

This Is A True And Accurate Copy Which Was Filed With The Secretary of State: March 10, 2006

Last Date Objections May Be Filed: April 10, 2006

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	**Effective Date of Increase	*	Basic Hourly Rates	Over- Time Schedule	Holiday Schedule	Total Fringe Benefits
Asbestos Worker			\$26.44	55	60	\$12.76
Boilermaker			\$28.19	57	7	\$17.42
Bricklayers-Stone Mason	6/06		\$24.70	75	40	\$7.10
Carpenter	5/06	e	\$25.16	74	41	\$9.15
Cement Mason	5/06		\$26.66	80	6	\$11.35
Electrician (Inside Wireman)	6/06		\$32.10	82	7	\$6.76 + 38%
Communication Technician			\$27.45	44	47	\$4.83 + 28.25%
Elevator Constructor		a	\$35.815	26	54	\$14.554
Operating Engineer						
Group I	5/06		\$24.62	86	66	\$15.40
Group II	5/06		\$24.62	86	66	\$15.40
Group III	5/06		\$23.37	86	66	\$15.40
Group III-A	5/06		\$24.62	86	66	\$15.40
Group IV	5/06		\$22.39	86	66	\$15.40
Group V	5/06		\$25.32	86	66	\$15.40
Pipe Fitter	7/06	c	\$31.00	91	69	\$17.93
Glazier			\$18.96	89	50	\$8.17
Laborer (Building):						
General	3/06		\$16.77	49	7	\$9.13
First Semi-Skilled	3/06		\$18.07	49	7	\$9.13
Second Semi-Skilled	3/06		\$17.07	49	7	\$9.13
Lather	5/06	b	\$26.95	71	41	\$9.32
Linoleum Layer & Cutter	5/06		\$26.93	92	26	\$9.15
Marble Mason	6/06		\$24.70	75	40	\$7.10
Millwright	5/06		\$30.52	77	41	\$9.32
Iron Worker	8/06		\$27.98	11	8	\$15.14
Painter			\$19.71	106	62	\$8.32
Plasterer	7/06		\$26.00	67	3	\$11.53
Plumber	7/06	c	\$31.00	91	69	\$17.93
Pile Driver	5/06	b	\$26.95	71	41	\$9.32
Roofer	6/06		\$17.60	15	73	\$6.65
Sheet Metal Worker			\$31.66	32	25	\$15.45
Sprinkler Fitter			\$29.09	33	19	\$12.65
Terrazzo Worker	6/06		\$24.70	75	40	\$7.10
Tile Setter	6/06		\$24.70	75	40	\$7.10
Truck Driver-Teamster						
Group I	5/06	d	\$24.27	103	77	\$8.00
Group II	5/06	d	\$24.43	103	77	\$8.00
Group III	5/06	d	\$24.42	103	77	\$8.00
Group IV	5/06	d	\$24.54	103	77	\$8.00
Welders-Acetylene & Electric		*				

Fringe Benefit Percentage is of the Basic Hourly Rate

Attention Workers: If you are not being paid the appropriate wage rate and fringe benefits contact the Division of Labor Standards at (573) 751-3403.

**Annual Incremental Increase

*SEE FOOTNOTE PAGE

ANNUAL WAGE ORDER NO. 13

8/06

[illegible]

* Welders receive rate prescribed for the occupational title performing operation to which welding is incidental.

Use Building Construction Rates on Building(s) and All Immediate Attachments. Use Heavy Construction rates for remainder of project. For the occupational titles not listed in Heavy Construction Sheets, use Rates shown on Building Construction Rate Sheet.

a - Vacation: Employees over 5 years - 8%, under 5 years - 6 %.

*b - Projects over \$1 Million - \$26.95; Projects under \$1 Million - \$25.18

*c - All work over \$3.5 Million Total Mechanical Contract - \$31.00, Fringes - \$17.93
All work under \$3.5 Million Total Mechanical Contract - \$29.66, Fringes - \$13.83

*d - Group I:

Projects over \$3 3/4 Million - \$24.27

Projects under \$3 3/4 Million - \$20.77

Group II:

Projects over \$3 3/4 Million - \$24.43

Projects under \$3 3/4 Million - \$20.93

Group III:

Projects over \$3 3/4 Million - \$24.42

Projects under \$3 3/4 Million - \$20.92

Group IV:

Projects over \$3 3/4 Million - \$24.54

Projects under \$3 3/4 Million - \$21.04

*e - Projects over \$1 1/2 Million - \$25.16; Projects Under \$1 1/2 Million - \$22.89

IRON COUNTY OVERTIME SCHEDULE BUILDING CONSTRUCTION

FED: Minimum requirement per Fair Labor Standards Act means time and one-half (1 ½) shall be paid for all work in excess of forty (40) hours per work week.

NO. 11: Means eight (8) hours shall constitute a day's work, with the starting time to be established between 6:00 a.m. and 8:00 a.m. from Monday to Friday. Time and one-half (1½) shall be paid for first two (2) hours of overtime Monday through Friday and the first eight (8) hours on Saturday. All other overtime hours Monday through Saturday shall be paid at double (2) time rate. Double (2) time shall be paid for all time on Sunday and recognized holidays or the days observed in lieu of these holidays.

NO. 15: Means the regular working day shall be scheduled to consist of at least eight (8) hours, but no more than ten (10) consecutive hours, exclusive of the lunch period. The regular working day may be scheduled to commence at any time between the hours of 5:00 a.m. and 10:00 a.m. All work performed in excess of forty (40) hours in one work week, or in excess of ten (10) hours in one work day shall be paid at the rate of one and one-half (1½) times the regular hourly wage scale. Any work performed on a Saturday shall be paid for at the rate of one and one-half (1½) times the regular hourly wage scale unless such Saturday work falls under the category of Saturday Make-Up Day. Any work performed by Employees anywhere on Sunday or recognized holidays, shall be paid for at the rate of double (2) time the regular wage scale. If, during the course of a work week, an Employee is unable to work for any reason, and, as a result, that Employee has not accumulated forty (40) hours of compensable time at the straight time rate, the Employer, at his option may offer the Employee the opportunity to work on Saturday at straight time; provided, however, if during the period worked by said Employee on Saturday, the Employee's compensable time at the straight time rate exceeds forty (40) hours, all time worked in excess of the forty (40) hours will be paid at the rate of one and one-half (1½) times the regular hourly wage scale.

NO. 26: Means that the regular working day shall consist of eight (8) hours worked between 6:00 a.m., and 5:00 p.m., five (5) days per week, Monday to Friday, inclusive. Hours of work at each jobsite shall be those established by the general contractor and worked by the majority of trades. (The above working hours may be changed by mutual agreement). Work performed on Construction Work on Saturdays, Sundays and before and after the regular working day on Monday to Friday, inclusive, shall be classified as overtime, and paid for at double (2) the rate of single time. The employer may establish hours worked on a jobsite for a four (4) ten (10) hour day work week at straight time pay for construction work; the regular working day shall consist of ten (10) hours worked consecutively, between 6:00 a.m. and 6:00 p.m., four (4) days per week, Monday to Thursday, inclusive. Any work performed on Friday, Saturday, Sunday and holidays, and before and after the regular working day on Monday to Thursday where a four (4) ten (10) hour day workweek has been established, will be paid at two times (2) the single time rate of pay. The rate of pay for all work performed on holidays shall be at two times (2) the single time rate of pay.

NO. 32: The regular working day shall consist of seven and one-half (7½) hours of labor on the job between eight (8) a.m. and four (4) p.m. and the regular working week shall consist of five (5) consecutive seven and one-half (7½) hour day's of labor on the job beginning with Monday and ending with Friday of each week. The normal work week is 37½ hours. All full-time or part-time labor performed during such hours shall be recognized as regular working hours and paid for at the regular hourly rate. All work performed outside of regular working hours and performed during the regular work week, shall be at double (2) times the regular rate, except that the first two (2) hours following the regular work day shall be paid at one and one-half (1½) times the regular rate. And, a flexible starting time as early as 7:00 a.m. may be implemented when mutually agreed upon by the interested parties. An early starting time of 6:00 a.m. may be used during summer months to avoid excessive afternoon temperatures. This early starting time to be used when mutually agreed upon by the interested parties. All work performed on recognized holidays and Saturday and Sunday shall be paid double (2) time. Appropriate overtime rates to be based on fifteen minute increments.

NO. 33: Means the standard work day shall be eight (8) consecutive hours of work between the hours of 6:00 a.m. and 6:00 p.m., excluding the lunch period, or shall conform to the practice on the job site. Four (4) days at ten (10) hours a day may be worked at straight time, Monday through Friday and need not be consecutive. All overtime, except for Sundays and holidays shall be at the rate of time and one-half (1½). Overtime worked on Sundays and holidays shall be at double (2) time.

**IRON COUNTY OVERTIME SCHEDULE
BUILDING CONSTRUCTION**

NO. 44: Means forty (40) hours shall constitute a work week, Monday through Friday. Eight (8) hours shall constitute a work day. Hours of work shall be between the hours of 7:00 a.m. and 5:00 p.m. All work performed before 7:00 a.m. and after 5:00 p.m. and all work performed in excess of eight (8) hours in any one work day, over forty (40) hours in any work week and the first eight (8) hours of work on Saturday, shall be paid at the rate of one & one-half (1½) times the regular rate of pay. All hours worked in excess of eight (8) hours on Saturday, all hours worked on Sunday and on holidays, shall be paid at two (2) times the regular rate of pay. All shifts for work performed between the hours of 4:30 p.m. and 12:30 a.m. shall receive eight (8) hours pay at the regular hourly rate of pay plus ten percent (10%) additional for seven and one-half (7½) hours work. The ten percent (10%) differential shall apply to the basic pay rate and the percentage fringe rates. All work performed between the hours of 12:30 a.m. and 8:00 a.m. on a third shift shall receive eight (8) hours pay for seven (7) hours work at the regular hourly rate plus fifteen percent (15%) differential shall apply for the basic pay rate and percentage fringe benefit rates. All overtime work required after the completion of a regular shift shall be paid at one and one-half times (1½ x) the "shift" hourly rate.

NO. 49: Means eight (8) hours shall constitute a day's work to begin at 8:00 a.m. and end at 4:30 p.m. The starting time may be advanced one (1) or two (2) hours. Employees shall receive time and one-half (1½) for all time they are required to work before 8:00 a.m., during the lunch period or after 4:30 p.m. unless the starting time is advanced as provided above. Forty (40) hours shall constitute a week's work, Monday through Friday. If an Employer is prevented from working forty (40) hours, Monday through Friday, or any part thereof by reason of inclement weather (rain or mud), Saturday or any part thereof may be worked as a make-up day at the straight time rate. The Employer shall have the option of working five (5) eight (8) hour days or four (4) ten (10) hour days Monday through Friday. If an Employer elects to work five (5) eight (8) hour days during any work week, hours worked more than eight (8) per day or forty (40) per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer elects to work four (4) ten (10) hour days in any week, work performed more than ten (10) hours per day or forty (40) hours per week shall be paid at time and one-half (1½) the hourly rate Monday through Friday. If an Employer is working ten (10) hour days and loses a day due to inclement weather, he may work ten (10) hours Friday at straight time. If workmen are required to work recognized holidays or days observed as such, or on Sunday, they shall receive double (2) the regular rate of pay for such work.

NO. 55: Means the regular work day shall be eight (8) hours between 6:00 a.m. and 4:30 p.m. The first two (2) hours of work performed in excess of the eight (8) hour work day, Monday through Friday, and the first ten (10) hours of work on Saturday, shall be paid at one & one-half (1½) times the straight time rate. All work performed on Sunday, observed holidays and in excess of ten (10) hours a day, Monday through Saturday, shall be paid at double (2) the straight time rate.

NO. 57: Means eight (8) hours per day shall constitute a day's work and forty (40) hours per week, Monday through Friday, shall constitute a week's work. The regular starting time shall be 8:00 a.m. The above may be changed by mutual consent of authorized personnel. When circumstances warrant, the Employer may change the regular workweek to four (4) ten-hour days at the regular time rate of pay. It being understood that all other pertinent information must be adjusted accordingly. All time worked before and after the established workday of eight (8) hours, Monday through Friday, all time worked on Saturday, shall be paid at the rate of time and one-half (1½) except in cases where work is part of an employee's regular Friday shift. All time worked on Sunday and recognized holidays shall be paid at the double (2) time rate of pay.

NO. 67: Means eight (8) hours shall constitute a day's work, with a flexible starting time to begin between 6:00 a.m. to 8:00 a.m., five (5) days a week, Monday through Friday. Any work over eight (8) hours in any one day shall be at the overtime rate, which is time & one-half (1½). Any work on Saturday shall be at time & one-half (1½), unless a Make-Up Day due to inclement weather is in effect. Any work on Sundays or holidays shall be at double (2) time. Four (4) days, ten (10) hours each day to be worked during Monday through Friday, shall be paid at straight time. A Make-Up Day Due To Inclement Weather Only - Employee(s) will be permitted to work an eight (8) hour make-up day on Saturday only, and the employee will receive the regular straight time wage rate. To be eligible for this eight (8) hour make-up day, the employee cannot have worked over thirty-two (32) hours for that particular workweek Monday through Friday. Any hours less than eight (8) hours may not be made up under this provision.

IRON COUNTY OVERTIME SCHEDULE BUILDING CONSTRUCTION

NO. 75: Means the standard work day shall consist of eight (8) hours of work between the hours of 8:00 a.m. or C.S.T. or C.D.S.T. and 4:30 p.m., with a thirty (30) minute unpaid lunch period occurring in the middle of the shift. The standard workweek shall consist of five standard workdays commencing on Monday and ending on Friday, inclusive. The normal starting and quitting times may be changed by mutual consent of interested parties.

All time worked before and after the established eight (8) hour work day, Monday through Friday, and all time worked on Saturdays, shall be paid for at the rate of one and one-half times the hourly base wage rate in effect. All time worked on Sundays and on recognized holidays shall be paid for at the rate of double the hourly base wage rate in effect.

In a work day provided a job runs at least four (4) working days, a ten (10) hour per day, four (4) days per week work schedule may be utilized. Ten (10) hours work per day shall constitute a day's work, forty (40) hours a week, Monday through Thursday, exclusively, shall constitute a week's work. The normal starting time of said day shall be between 6:30 a.m. and 8:30 a.m. The normal quitting time shall be ten and one-half (10½) hours after the starting time. A thirty (30) minute unpaid lunch shall occur in the middle of the day. The normal starting and quitting times may be changed by mutual consent of the interested parties. Provided a job runs at least four (4) working days and in the event, the job is shut down for eight (8) hours or more in one (1) work day Monday through Thursday due to inclement weather at the job site, then, at the option of the employer, Friday of the same work week may be worked as a makeup day. The Friday makeup day will be considered identical in start and stop times as a ten (10) hour work day, (even if some overtime occurs or should ten (10) hours be lost to inclement weather), it would be worked as all other work days.

NO. 77: Means the regular workday shall consist of eight (8) consecutive hours, exclusive of a thirty (30) minute lunch period, with pay at the regular straight time hourly rate. The regular workday shall begin on the job site between the hours of 6:00 a.m. and 8:00 a.m. The Employer may establish a four (4) ten (10) hour shift exclusive of the thirty (30) minute lunch period at the straight time wage rate. Forty (40) hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other conditions beyond the control of the Employer, then Friday may, at the option of the employer, be worked as a make-up day at the straight time wage rate. Straight time is not to exceed ten (10) hours a day or forty (40) hours per week. Time and one-half (1½) shall be paid for all overtime hours worked during the week, Monday through Friday and for all work performed on Saturday. Double (2) time shall be paid for all time worked on Sunday and recognized holidays.

NO. 80: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 6:30 a.m. through 9:00 a.m. An Employer may further adjust the starting time up to 9:30 a.m. throughout the year. Time and one-half (1½) shall be paid after eight (8) consecutive hours worked after the established starting time and for hours worked before the established starting time. Time and one-half (1½) shall be paid for work performed on Saturdays. Work performed on Sundays and Holidays shall be paid at the double (2) time rate of pay. The Employer when working on Highway and Road Work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate of time and one-half (1½). If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling), the Employer shall have the option to work Friday at the straight time rate of pay to complete the forty (40) hours.

NO. 82: Means the workday shall consist of eight (8) hours worked between 7:00 a.m. and 4:30 p.m. Forty (40) hours will constitute the workweek from Monday through Friday inclusive. Up to four (4) hours of overtime work per day performed before or after the assigned normal workday, (twelve (12) continuous hours, starting no earlier than 6:00 a.m.), Monday through Friday, shall be paid at a rate of one and one-half times (1.5x) that employee's hourly rate. Any additional overtime, Monday through Friday, shall be paid at a rate of double (2x) that employee's hourly rate. For hours worked on Saturday, Sunday and recognized legal holidays, or days that may be celebrated as such, and as designated by the federal government, double (2) time shall be paid. All shifts for work performed between the hours of 4:30 p.m. and 12:30 a.m. shall receive eight (8) hours pay at the regular hourly rate of pay plus ten percent (10%) additional for seven and one-half (7½) hours work. The ten percent (10%) differential shall apply to the basic pay rate and the percentage fringe rates. All work performed between the hours of 12:30 a.m. and 8:00 a.m. on a third shift shall receive eight (8) hours pay for seven (7) hours work at the regular hourly rate plus fifteen percent (15%) differential shall apply for the basic pay rate and percentage fringe benefit rates. When a shift continues past the latest time at which a shift may operate, then the appropriate percentage overtime is paid.

IRON COUNTY OVERTIME SCHEDULE BUILDING CONSTRUCTION

NO. 86: Means the regular work week shall consist of five (5) days, Monday through Friday, beginning at 8:00 a.m. and ending at 4:30 p.m. The regular work day beginning time may be advanced one or two hours or delayed by one hour. However, the Employer may have the option to schedule his work week from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, inclement weather or holiday, he shall have the option to work Friday at the straight time rate of pay to complete his forty (40) hours. If an employee declines to work Friday as a make-up day, he shall not be penalized. All overtime work performed on Monday through Saturday shall be paid at time and one-half (1½) of the hourly rate plus an amount equal to one-half (½) of the hourly Total Indicated Fringe Benefits. All work performed on Sundays and recognized holidays shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits.

NO. 89: Means the normal workweek shall consist of five (5) eight (8) hour days for a total of forty (40) hours, starting on Monday at 8:00 a.m. and ending on Friday at 4:30 p.m. The starting time can be flexible between 6:00 a.m. and 8:00 a.m. and ending at 2:30 p.m. or 4:30 p.m. respectively. All work before designated starting time and after quitting time shall be paid for at the rate of time and one-half (1½). An overtime rate of time and one-half (1½) the base hourly rate shall be paid on all hours in excess of eight (8) hours in a day Monday through Friday. Saturdays, Sundays and Holidays shall be paid for at the rate of double (2) time. Any work started after 12:00 midnight Sunday, will be classified as time and one-half (1½) up to the legal starting time on Monday.

NO. 91: Means eight (8) hours shall constitute a day's work commencing at 8:00 a.m. and ending at 4:30 p.m., allowing one-half (½) hour for lunch. The option exists for the Employer to use a flexible starting time between the hours of 6:00 a.m. and 9:00 a.m. The regular workweek shall consist of forty (40) hours of five (5) workdays, Monday through Friday. The workweek may consist of four (4) ten (10) hour days from Monday through Thursday, with Friday as a make-up day. If the make-up day is a holiday, the employee shall be paid at the double (2) time rate. The employees shall be paid time and one-half (1½) for work performed before the regular starting time or after the regular quitting time or over eight (8) hours per work day (unless working a 10-hour work day, then time and one-half (1½) is paid for work performed over ten (10) hours a day) or over forty (40) hours per work week. Work performed on Saturdays, Sundays and recognized holidays shall be paid at the double (2) time rate of pay.

NO. 92: Means all work performed from 8:00 a.m. to 4:30 p.m., Monday through Friday, will be at straight time pay up to forty (40) hours per week. All work performed Monday through Friday before 8:00 a.m. and after 4:30 p.m. will be done at time and one-half (1½). All work done on Saturday will be done at time and one-half (1½), unless the employer and employee agree that Saturday shall be used as a make-up day. The Employer may use a flexible starting time of 7:00 a.m. to 8:00 a.m., and quitting time of 3:30 p.m. to 4:30 p.m., and any such different work starting time shall determine whether wages are payable at the straight rate or the premium rate. All work performed on Saturday shall be paid for at time and one-half (1½), unless the Saturday has been used as a make-up day. All work performed on Sunday and holidays shall be paid for at the rate of double (2) time.

NO. 103: Means a regular workweek of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 106: Means the normal work week shall consist of five (5) eight (8) hour days for a total of forty (40) hours, starting on Monday at 8:00 a.m. and ending on Friday at 4:30 p.m. The starting time can be flexible between 6:00 a.m. and 8:00 a.m., and ending at 2:30 p.m. or 4:30 p.m. respectively. All work before the designated starting time and after the quitting time shall be paid for at the rate of time and one-half (1½). An overtime rate of time and one-half (1½) the base hourly rate shall be paid on all hours in excess of eight (8) hours in a day Monday through Friday. Any work started after 12:00 midnight Sunday, will be classified as time and one-half (1½) up to the legal starting time on Monday. Saturdays shall be considered overtime and work done on Saturday shall be paid at time and one-half (1½) the prevailing scale. Sundays and Holidays shall be considered overtime and work done on these days shall be paid at double (2) the prevailing scale.

NO. 116: Means the standard work day shall consist of eight (8) hours of work between the hours of 8:00 a.m. and 4:30 p.m. The standard work week shall consist of five standard work days commencing on Monday and ending on Friday inclusive. All time worked before and after the established eight (8) hour work day, Monday through Friday, and all time worked on Saturdays, shall be paid for at the rate of time & one-half (1½) the hourly base wage rate in effect. All time worked on Sundays and recognized holidays shall be paid for at the rate of double (2) the hourly base wage rate in effect.

IRON COUNTY HOLIDAY SCHEDULE – BUILDING CONSTRUCTION

NO. 3: All work done on New Year's Day, Decoration Day, July 4th, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 5: All work that shall be done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay.

NO. 6: All work done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, and any additional holidays which may be mutually agreed upon shall be paid at the double time rate of pay. Whenever any such holiday falls on a Sunday, the following Monday shall be recognized and observed as the holiday. No work shall be performed on Labor Day.

NO. 7: All work done on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day shall be paid at the double time rate of pay. If a holiday falls on a Sunday, it shall be observed on the Monday following. If a holiday falls on a Saturday, it shall be observed on the preceding Friday.

NO. 8: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day, or the days observed in lieu of these holidays, shall be paid at the double time rate of pay.

NO. 19: All work done on New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day, and Christmas Day shall be paid at the double time rate of pay. The employee may take off Friday following Thanksgiving Day. However, the employee shall notify his or her Foreman, General Foreman or Superintendent on the Wednesday preceding Thanksgiving Day. When one of the above holidays falls on Sunday, the following Monday shall be considered the holiday and all work performed on said day shall be at the double (2) time rate. When one of the holidays falls on Saturday, the preceding Friday shall be considered the holiday and all work performed on said day shall be at the double (2) time rate.

NO. 25: All work done on New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, Christmas Day, Presidential Election Day, or days locally observed as such, and Saturday and Sunday shall be recognized as holidays and shall be paid at the double (2) time rate of pay. If a named holiday falls on a Saturday, the holiday will be observed on the preceding Friday. When a named holiday falls on Sunday, the Monday after will be observed as the holiday. Appropriate overtime rates to be based on fifteen minute increments.

NO. 26: All work done on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. When a Holiday occurs on Saturday it shall not be observed on either the previous Friday or the following Monday. Such days shall be regular work days. If such a holiday occurs on Sunday it shall be observed on the following Monday.

NO. 40: The employer agrees to recognize the following holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day. If the holiday falls on a Sunday, and is worked, the following work day will be double time wages for the holiday.

NO. 41: The following days shall be observed as legal holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. No work shall be performed on the Fourth of July, Labor Day or Christmas Day. Any work performed on the above holidays shall be paid for at two (2) times the regular straight time rate of pay. When any of the above holidays fall on Sunday, the following Monday shall be observed as such holiday. If a holiday falls on Saturday, it shall not be considered to be observed on the previous Friday or following Monday. Such days shall be regular workdays.

NO. 47: The following holidays are recognized: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. When a holiday listed above falls on Saturday, it shall be celebrated on the Friday preceding the holiday. When a holiday falls on Sunday, the following Monday shall be observed. Holidays referred to above shall be paid for at the double (2) time rate of pay when worked.

IRON COUNTY
HOLIDAY SCHEDULE – BUILDING CONSTRUCTION

NO. 50: All work performed on Saturdays, Sundays and recognized holidays shall be considered overtime and work performed on these days shall be paid at double (2) the prevailing scale. The holidays of understanding are: New Years' Day, Decoration Day, Independence Day, Veterans Day, Labor Day, Thanksgiving Day and Christmas Day. Should any of these holidays fall on Saturday, the Friday before shall be observed as the holiday. Should any of these days fall on Sunday, then the following Monday shall be observed as the holiday. Under no circumstance shall employees be permitted to work on Labor Day (the first Monday in September).

NO. 54: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day shall be paid at the double (2) time rate of pay. When a holiday falls on Saturday, it shall be observed on Friday. When a holiday falls on Sunday, it shall be observed on Monday.

NO. 60: All work performed on New Year's Day, Armistice Day (Veteran's Day), Decoration Day (Memorial Day), Independence Day (Fourth of July), Thanksgiving Day and Christmas Day shall be paid at the double time rate of pay. No work shall be performed on Labor Day except when triple (3) time is paid. When a holiday falls on Saturday, Friday will be observed as the holiday. When a holiday falls on Sunday, the following Monday shall be observed as the holiday.

NO. 62: All work performed on holidays shall be considered overtime and work performed on these days shall be paid at double (2) time prevailing scale. The holidays of understanding are: New Years' Day, Decoration Day, Independence Day, Veteran's Day, Thanksgiving Day and Christmas Day. Should any of these days fall on Sunday, then the following day shall be observed as the holiday. Under no circumstance shall employees be permitted to work on Labor Day (the first Monday in September).

NO. 66: All work performed on Sundays and the following recognized holidays, or the days observed as such, of New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day, shall be paid at double (2) the hourly rate plus an amount equal to the hourly Total Indicated Fringe Benefits. Whenever any such holidays fall on a Sunday, the following Monday shall be observed as a holiday.

NO. 69: All work performed on New Year's Day, Decoration Day, July Fourth, Labor Day, Veteran's Day, Thanksgiving Day or Christmas Day shall be compensated at double (2) their straight-time hourly rate of pay. Friday after Thanksgiving and the day before Christmas will also be holidays, but if the employer chooses to work these days, the employee will be paid at straight-time rate of pay. If a holiday falls on a Sunday in a particular year, the holiday will be observed on the following Monday.

NO. 73: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day (or mutually agreed date of the Friday after Thanksgiving Day may be substituted for Veteran's Day), Thanksgiving Day and Christmas Day, or on the day or days recognized and observed as such, shall be paid for at double (2) time the regular hourly rate.

NO. 77: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

OCCUPATIONAL TITLE	*Effective Date of Increase	Basic Hourly Rates	Over- Time Schedule	Holiday Schedule	Total Fringe Benefits
CARPENTER					
Journeymen	5/06	\$26.32	23	16	\$9.17
Millwright	5/06	\$26.32	23	16	\$9.17
Pile Driver Worker	5/06	\$26.32	23	16	\$9.17
OPERATING ENGINEER					
Group I	5/06	\$23.70	21	5	\$15.31
Group II	5/06	\$23.35	21	5	\$15.31
Group III	5/06	\$23.15	21	5	\$15.31
Group IV	5/06	\$19.50	21	5	\$15.31
Oiler-Driver	5/06	\$19.50	21	5	\$15.31
CEMENT MASON	6/06	\$25.25	6	6	\$11.27
LABORER					
General Laborer	5/06	\$22.52	2	4	\$8.13
Skilled Laborer	5/06	\$23.12	2	4	\$8.13
TRUCK DRIVER-TEAMSTER					
Group I	5/06	\$24.27	22	19	\$8.00
Group II	5/06	\$24.43	22	19	\$8.00
Group III	5/06	\$24.42	22	19	\$8.00
Group IV	5/06	\$24.54	22	19	\$8.00

For the occupational titles not listed on the Heavy Construction Rate Sheet, use Rates shown on the Building Construction Rate Sheet.

IRON COUNTY OVERTIME SCHEDULE – HEAVY CONSTRUCTION

NO. 2: Means a regular workweek shall be forty (40) hours and will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof, by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. A workday shift is to begin at the option of the Employer, between 6:00 a.m. and not later than 9:00 a.m. However, the project starting time may be advanced or delayed if required. If workmen are required to work the enumerated holidays or days observed as such or Sundays, they shall receive double (2) the regular rate of pay for such work.

NO. 6: Means eight (8) hours shall constitute the regular work day and forty (40) hours a work week, Monday through Friday. The Employer shall establish the starting time between 7:00 a.m. and 9:00 a.m. Time and one-half (1½) shall be paid for work performed on a regular work day before the regular starting time and after the regular quitting time. Double (2) time shall be paid for work performed on Sunday and holidays. At the discretion of the Employer, Saturday can be used for a make-up day. The Employer when working on highway and road work may have the option to schedule the work week for his paving crew only from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to inclement weather (rain, snow, sleet falling) he shall have the option to work Friday at the straight time rate of pay to complete his or her forty (40) hours.

NO. 21: Means the regular workday for which employees shall be compensated at straight time hourly rate of pay shall, unless otherwise provided for, begin at 8:00 a.m. and end at 4:30 p.m. However, the project starting time may be advanced or delayed at the discretion of the Employer. At the discretion of the Employer, when working a five (5) day eight (8) hour schedule, Saturday may be used for a make-up day. If an Employer is prohibited from working on a holiday, that employer may work the following Saturday at the straight time rate. However, the Employer may have the option to schedule his work from Monday through Thursday at ten (10) hours per day at the straight time rate of pay with all hours in excess of ten (10) hours in any one day to be paid at the applicable overtime rate. If the Employer elects to work from Monday through Thursday and is stopped due to circumstances beyond his control, he shall have the option to work Friday or Saturday at the straight time rate of pay to complete his forty (40) hours. If an Employer is prohibited from working on a holiday, that Employer may work the following Friday or Saturday at the straight time rate. Overtime will be at one and one-half (1½) times the regular rate. If workmen are required to work the enumerated holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work.

NO. 22: Means a regular work week of forty (40) hours will start on Monday and end on Friday. The regular work day shall be either eight (8) or ten (10) hours. If a crew is prevented from working forty (40) hours Monday through Friday, or any part thereof by reason of inclement weather, Saturday or any part thereof may be worked as a make-up day at the straight time rate. Employees who are part of a regular crew on a make-up day, notwithstanding the fact that they may not have been employed the entire week, shall work Saturday at the straight time rate. For all time worked on recognized holidays, or days observed as such, double (2) time shall be paid.

NO. 23: Means the regular workweek shall start on Monday and end on Friday except that the Employer may establish a workweek of four (4) days per week at ten (10) hours per day, exclusive of the thirty (30) minute unpaid lunch, at the straight time rate. Forty hours per week shall constitute a week's work Monday through Thursday. In the event a job is down due to weather conditions, safety or other conditions beyond the control of the Employer, then Friday may, at the option of the Employer, be worked as a make-up day at the straight-time rate (if working 4-10's). All work over ten (10) hours in a day or forty (40) hours in a week shall be at the overtime rate of one and one-half (1½) times the regular hourly rate. The regular workday shall be either eight (8) or ten (10) hours. Starting time will be designated by the Employer. Fridays can be worked in lieu of holidays at the Employee's option. Saturday may be worked as a make-up day at straight time (if working 5-8's). Saturdays shall not be utilized as a make-up day for days lost from holidays (if working 4-10's). Except as worked as a make-up day, time on Saturday shall be worked at one and one-half (1½) times the regular rate. Work performed on Sunday shall be paid at two (2) times the regular rate. Work performed on recognized holidays or days observed as such shall also be paid at the double (2) time rate of pay.

IRON COUNTY
HOLIDAY SCHEDULE – HEAVY CONSTRUCTION

NO. 4: All work performed on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, or days observed as such, shall be paid at the double time rate of pay. When a holiday falls on a Sunday, Monday shall be observed.

NO. 5: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. If a holiday falls on a Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward a forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workman unless worked. If workmen are required to work the above recognized holidays or days observed as such, or Sundays, they shall receive double (2) the regular rate of pay for such work. The above shall apply to the four 10's Monday through Thursday work week. The ten (10) hours shall be applied to the forty (40) hour work week.

NO. 6: All work done on New Year's Day, Decoration Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving and Christmas shall be compensated at the double (2) time rate of pay. When a holiday occurs on Saturday, it shall not be observed on either the previous Friday or the following Monday. Such days shall be a regular workday. If such a holiday occurs on Sunday, it shall be observed on the following Monday. No work shall be performed on Labor Day.

NO. 16: The following days are recognized as holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on Sunday, it shall be observed on the following Monday. If a holiday falls on Saturday, it shall be observed on the preceding Friday. No work shall be performed on Labor Day except in case of jeopardy to work under construction. This rule is applied to protect Labor Day. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid to the worker unless worked. If workers are required to work the above recognized holidays or days observed as such, they shall receive double (2) the regular rate of pay for such work.

NO. 19: The following days are recognized as holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. If a holiday falls on a Sunday, it shall be observed on the following Monday. When a holiday falls during the normal work week, Monday through Friday, it shall be counted as eight (8) hours toward the forty (40) hour week; however, no reimbursement for this eight (8) hours is to be paid the workmen unless worked. If workmen are required to work the above enumerated holidays, or days observed as such, they shall receive double (2) the regular rate of pay for such work.

OUTSIDE ELECTRICIAN

These rates are to be used for the following counties:

Adair, Audrain, Boone, Callaway, Camden, Carter, Chariton, Clark, Cole, Cooper, Crawford, Dent, Franklin, Gasconade, Howard, Howell, Iron, Jefferson, Knox, Lewis, Lincoln, Linn, Macon, Maries, Marion, Miller, Moniteau, Monroe, Montgomery, Morgan, Oregon, Osage, Perry, Phelps, Pike, Pulaski, Putnam, Ralls, Randolph, Reynolds, Ripley, St. Charles, St. Francois, St. Louis City, St. Louis County, Ste. Genevieve, Schuyler, Scotland, Shannon, Shelby, Sullivan, Texas, Warren, and Washington

COMMERCIAL WORK

Occupational Title	Basic	Total
	Hourly	Fringe
	Rate	Benefits
Journeyman Lineman	\$30.30	\$4.75 + 41.3%
Lineman Operator	\$27.04	\$4.75 + 41.3%
Groundman	\$21.22	\$4.75 + 41.3%

OVERTIME RATE: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed outside the regularly scheduled working hours and on Saturdays, Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

HOLIDAY RATE: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday.

UTILITY WORK

Occupational Title	Basic	Total
	Hourly	Fringe
	Rate	Benefits
Journeyman Lineman	\$30.30	\$4.75 + 37.3%
Lineman Operator	\$26.16	\$4.75 + 37.3%
Groundman	\$20.23	\$4.75 + 37.3%

OVERTIME RATE: Eight (8) hours shall constitute a work day between the hours of 7:00 a.m. and 4:30 p.m. Forty (40) hours within five (5) days, Monday through Friday inclusive, shall constitute the work week. Work performed in the 9th and 10th hour, Monday through Friday, shall be paid at time and one-half (1½) the regular straight time rate of pay. Contractor has the option to pay two (2) hours per day at the time and one-half (1½) the regular straight time rate of pay between the hours of 6:00 a.m. and 5:30 p.m., Monday through Friday. Work performed in the first eight (8) hours on Saturday shall be paid at the rate of one and eight tenths (1.8) the regular straight time rate. Work performed outside these hours and on Sundays and recognized legal holidays, or days celebrated as such, shall be paid for at the rate of double (2) time.

HOLIDAY RATE: All work performed on New Year's Day, Memorial Day, Fourth of July, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day, or days celebrated as such, shall be paid at the double time rate of pay. When one of the foregoing holidays falls on Sunday, it shall be celebrated on the following Monday.